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SPECIAL ARTICLES

Morbidity in the Recent Influenza Epidemic
A Note on Influenza in Foreign Countries
Current World Prevalence of Communicable Diseases



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UNITED STATES PUBLIC HEALTH SERVICE

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The PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of public health.

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PUBLIC HEALTH REPORTS

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MORBIDITY IN THE INFLUENZA EPIDEMIC OF 1928-29

Preliminary Report on Surveys in Certain Cities

By M. V. VELDEE, *Passed Assistant Surgeon, United States Public Health Service*

Immediately following the influenza epidemic of 1918 the United States Public Health Service, in an attempt to secure a reliable record of the resultant morbidity, canvassed large samples of the population in a number of cities. For each individual in the canvassed population a record was obtained of color, sex, age, and history of pneumonia, influenza, or less definitely diagnosed illness during the period of the epidemic. A record was also made of the deaths which had occurred during the epidemic in the canvassed households. The results of this survey, which have been presented in several publications, furnish the most nearly accurate and at the same time the most extensive information that is available concerning the prevalence and distribution of morbidity from influenza in the autumn of 1918.

During the epidemic which prevailed during the latter part of 1928 and the early weeks of 1929 plans were made for a similar survey, to afford, for this outbreak, a record comparable to that already compiled of the epidemic of 1918. This survey has now been completed; and, although full analysis of the data collected will require considerable time, some preliminary tabulations have been made which suffice to show approximately the gross morbidity rates in the several localities studied.

Because of the almost prohibitive difficulties and expense of canvassing rural communities, the surveys were limited to large cities; and these were chosen with a view to representing as many sections of the United States as practicable. Those selected were as follows: San Francisco and Seattle, on the Pacific Coast; Des Moines, Kansas City (Mo.), Cincinnati, and Pittsburgh, representing the Middle West; New Orleans, as a southern city; and, in the northeast, Baltimore, Syracuse, and Boston. It was later found practicable to add a single small city, Farmington, Mo.

In order to afford sufficient numbers for statistical analysis, the sample canvassed in each locality (except Farmington) comprised

not less than 10,000 persons, and in cities of more than 400,000 inhabitants this number was increased to 15,000 or more. To secure a representative sample, a total of 12 to 20 districts were marked off in each city, and in each of these districts a systematic house-to-house canvass was made.

The canvasses were made in different cities under the direction of various medical officers of the Public Health Service, detailed for this purpose by the Surgeon General. However, all the surveys were carried out in accordance with a uniform plan previously drawn up in the statistical office of the service, which included a full explanation of general procedure for the officers in local charge, and detailed instructions to enumerators as to methods of inquiry and record. The persons employed as enumerators in the various localities surveyed were of fairly uniform qualifications for the work, being almost invariably graduate nurses, social workers, or teachers. Moreover, the schedule of inquiries was simple; the survey was made in each city as soon as it was clear that the epidemic had subsided, and the periods of time included in the record did not vary greatly. Hence, it is believed that the data collected for the several cities are fairly uniform.

It is fully recognized, however, that all the records are subject to certain obvious, but practically inevitable, errors, due principally to lack of definitive criteria for the diagnosis of influenza, and to lapses of memory on the part of the householders from whom the information was obtained. These causes tend, respectively, to uncertainty in the diagnostic classification of reported cases, and to omission of a certain proportion of cases, especially those which were not of sufficient severity to leave a lasting impression upon the memory.

As regards diagnostic classification of cases, enumerators were instructed to inquire concerning the occurrence of "influenza," "grippe," "pneumonia," or "colds," and to record for each case the diagnosis given by the householder. Presumably all the cases reported as pneumonia had been so diagnosed by attending physicians; and a preliminary check of the records indicates that this was true also in a large proportion of the cases classed as "influenza" or "grippe." Also, it is probable that the cases so diagnosed were usually of sufficient severity to be remembered by the householders and reported to the enumerators. Therefore, with full recognition of all the probable sources of error in reporting, it is believed that the records as to these classes of cases have a fairly definite qualitative and quantitative significance.

On the other hand, a large majority of the cases reported as "colds" had not been attended by physicians; and it is well known that ordinary colds are likely to be forgotten within a few weeks. Hence, it may be inferred that the record of colds is far from complete, and that it probably includes cases of more or less heterogeneous type.

TABLE 1.—Summary of localities and populations canvassed for incidence of influenza and other respiratory diseases

Localities canvassed	Populations estimated as of July 1, 1928	Number of persons included in canvass	Period for which morbidity was recorded		
			Total days	From—(1928)	To—(1929)
All localities.....	4, 850, 885	134, 953			
San Francisco.....	585, 300	14, 856	98	Oct. 15	Jan. 21
Seattle.....	383, 300	11, 750	75	Nov. 15	Jan. 29
Kansas City, Mo.....	391, 000	10, 142	69	Nov. 20	Jan. 28
Farmington, Mo.....	¹ 2, 685	1, 222	70	Dec. 1	Feb. 11
Des Moines.....	151, 900	10, 032	77	Nov. 15	Jan. 31
New Orleans.....	429, 400	15, 148	95	Nov. 1	Feb. 6
Cincinnati.....	413, 700	11, 445	66	Dec. 1	Feb. 4
Pittsburgh.....	673, 800	15, 814	66	do.	Do.
Baltimore.....	830, 400	16, 449	83	do.	Feb. 20
Syracuse.....	199, 300	10, 779	73	do.	Feb. 11
Boston.....	790, 200	17, 316	73	Dec. 15	Feb. 26

¹ 1920 census population.

Table 1 shows, for each locality included in the survey, the total population, the number of persons included in the canvass, and the period for which illness was recorded, while Table 2 shows, for each group, the attacks of "influenza or grippe," "pneumonia," and "colds," respectively, per 100 persons canvassed. For purposes of comparison, Table 3 is added, summarizing, in a similar way, the results of the surveys made in November and December, 1918, immediately following the major wave of the influenza epidemic of that year.

TABLE 2.—Attack rates from influenza and grippe, pneumonia, and colds, during the epidemic of 1928-29, in canvassed populations in various cities

City	Cases per 100 persons canvassed			
	Influenza and grippe	Pneumonia	Colds ¹	Total, influenza and grippe, pneumonia, and colds
All localities.....	14.7	0.47	² 14.0	³ 29.7
San Francisco.....	14.2	0.26	19.6	34.1
Seattle.....	17.9	0.38	12.6	30.9
Kansas City, Mo.....	15.0	0.60	11.5	27.1
Farmington, Mo.....	16.3	0.24	21.2	37.7
Des Moines.....	28.6	0.60	17.9	47.1
New Orleans.....	16.0	0.36	13.2	29.6
Cincinnati.....	13.5	0.38	12.9	27.0
Pittsburgh.....	13.4	0.77	11.0	25.2
Baltimore.....	11.3	0.47	⁴ 3.3	³ 15.1
Syracuse.....	12.6	0.43	13.8	26.8
Boston.....	9.9	0.53	13.1	23.5

¹ Including so-called "colds" in head or chest, coughs, and similar minor affections of the respiratory tract other than those reported as influenza, grippe, or pneumonia.² Excluding data from Baltimore.³ Includes only those colds which confined patient to bed one or more days.

As shown in Table 2, nearly 15 per cent of the population canvassed in all localities surveyed in 1929 gave a history of having suffered attacks of "influenza or grippe," while 0.47 per cent gave a history

of pneumonia, and an additional 14 per cent reported "colds," which may or may not have been directly related to the epidemic.

The influenza attack rate was notably low in Boston, 9.9 per cent, and exceptionally high in Des Moines, 28.6 per cent. With these two exceptions, the incidence rates were remarkably uniform, ranging only from 11.3 per cent in Baltimore to 17.9 per cent in Seattle. As compared with the attack rates found in 1918, those reported in 1928-29 are only about half as high and distinctly more uniform.

TABLE 3.—*Attack rates from influenza and grippe, pneumonia, and "doubtful" during the epidemic of 1918-19 in canvassed populations in various cities*

City	Cases per 100 persons canvassed			
	Influenza and grippe	Pneumonia	"Doubtful" ¹	Total influenza and grippe, pneumonia, and "doubtful"
All localities.....	24.2	1.64	2.15	28.0
San Francisco.....	19.2	1.60	.75	21.5
Des Moines.....	29.5	2.29	1.31	33.1
Baltimore.....	19.8	1.64	3.19	24.6
New London.....	16.6	1.63	.24	18.5
Spartanburg.....	16.5	.53	4.38	21.4
Augusta.....	30.4	1.46	2.26	34.1
Macon, Ga.....	18.0	1.20	2.11	21.3
Louisville, Ky.....	11.7	.84	2.80	15.0
Little Rock.....	34.3	1.52	.04	35.9
San Antonio.....	48.2	2.32	2.05	53.5
Minor towns in Maryland.....	35.4	2.43	2.68	40.5

¹ Including colds not diagnosed as influenza or grippe.

The incidence of pneumonia, averaging 4.74 per 1,000 in all the localities, ranges from 2.56 in San Francisco to 7.65 per 1,000 in Pittsburgh. It does not at all closely parallel the incidence of influenza, the ratio of pneumonia to influenza being high in Pittsburgh, Kansas City, and Boston, and relatively low in Seattle and San Francisco. Comparing Tables 2 and 3, the incidence of pneumonia is shown to be about one-third as high in the epidemic of 1928-29 as in that of 1918. It is probable, however, that the disparity between the two epidemics is greater than these figures would indicate, since the periods covered by the 1928-29 record are generally longer than those covered in 1918. Moreover, the 1918 epidemic occurred at a season when the prevalence of pneumonia is normally rather low, whereas the recent epidemic occurred at a season when the prevalence of pneumonia is normally rather high and increasing.

In the canvass of Baltimore, enumerators were instructed to record the occurrence of colds only where the patients had been confined to bed for at least one day. Hence, the records of colds in Baltimore are not comparable with those for the other localities, where no such

limitation was imposed. Excepting Baltimore, the other cities show an incidence of colds ranging from about 11 to 21 per cent. The significance of these so-called colds in relation to the influenza epidemic will probably be clearer when analyses have been made to show chronology and resulting disability. In the meantime, it is hardly profitable to speculate on the subject. Compared with the attack rates which have been found in groups kept under close and continuous observation, an incidence rate of 15 to 20 per cent in a period of two and a half to three months is so low as to indicate that the reports probably include only a fraction of the cases which actually occurred, and that the records afford no sufficient basis for comparisons of different localities.

Acknowledgments.—The following Public Health Service officers conducted the surveys in the respective cities:¹ San Francisco, Surg. R. H. Creel; Seattle, Senior Surg. L. D. Fricks, assisted by Asst. Surg. F. S. Fellows; Kansas City and Farmington, Passed Asst. Surg. E. R. Coffey; Des Moines, Passed Asst. Surg. A. S. Rumreich; New Orleans, Surg. William C. Rucker, assisted by Passed Asst. Surg. W. Y. Hollingsworth; Cincinnati, Surg. R. Olesen; Pittsburgh, Acting Asst. Surg. R. R. Jones; Baltimore, Surg. W. H. Frost; Boston, Surg. J. W. Schereschewsky.

In each city visited, the Public Health Service officers received the full cooperation of the respective city health officers and their associates. It is a pleasure to acknowledge the cordial cooperation shown by them, as well as by the many persons interviewed.

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NOTE ON INFLUENZA IN FOREIGN COUNTRIES

The influenza epidemic which recently occurred in the United States appears to have reached many other parts of the world.

The incomplete reports which are at hand suggest that in some areas influenza was unduly prevalent during the spring and summer of 1928. An appreciable excess over the usual number of cases occurred in certain States of the United States as early as April and May. According to the Epidemiological Report issued by the health section of the League of Nations, influenza caused a considerable mortality in July, 1928, in the Province of Szechuan in the interior of China, and the disease at that time became widespread over large parts of North China. Between June and November, outbreaks, generally of mild type, appeared in the Pacific Islands,

¹The writer conducted the survey in Syracuse, and assisted in the surveys in Pittsburgh, Baltimore, and Boston.

south and east of China, including the Cook, Tonga, and Solomon Islands, and Hawaii.

Late in October the disease became epidemic on the Pacific coast of the United States, coming to a peak there about December 8. Thence it spread eastward, the mortality coming to a peak in New England about six or seven weeks later, near the end of January, 1929.

In Europe, according to the Epidemiological Report of the League of Nations, there was little indication of any oncoming influenza epidemic until the end of December, 1928. The disease seems to have appeared first in epidemic form in Breslau, Germany. It is interesting to note that this city is in the interior, near the south-eastern border. In Breslau the death rate from all causes rose from 12.9 per 1,000 (annual basis) during the first week of December to 20.9 in the third week. The peak mortality rate of 29 came during the week ended January 5, 1929.

The epidemic next appeared in other German cities and in some of the Scandinavian countries and Great Britain. In the latter country the disease appeared first in Glasgow. The epidemic seems to have appeared relatively late in the Netherlands, Poland, Austria, and other south European countries. The health commissioner of the Soviet Republics stated that there was no unusual prevalence anywhere in the Union up to the end of January.

The peak mortality rates (all causes) and the dates of their occurrence are shown in the accompanying table for cities in Europe having relatively high rates, with comparative data for cities in the United States.

Peak mortality rates in certain cities in Europe and the United States

Europe			United States		
Country and city	Highest weekly mortality (annual basis)	Week ended	Geographic division and city	Highest weekly mortality (annual basis)	Week ended
Scotland: Glasgow.....	55.2	Jan. 26, 1929	East South Central: Birmingham, Ala.....	61.6	Jan. 12, 1929
Ireland: Belfast.....	52.8	Feb. 2, 1929	Nashville, Tenn.....	43.4	Do.
Spain: Barcelona.....	40.1	Feb. 16, 1929	Memphis, Tenn.....	40.4	Jan. 8, 1929
Seville.....	34.4	do.	Middle Atlantic: Pittsburgh, Pa.....	45.4	Do.
France: Lille.....	39.5	do.	West South Central: New Orleans, La.....	40.1	Do.
Lyon.....	32.6	Feb. 20, 1929	Mountain: Denver, Colo.....	33.8	Dec. 15, 1928
Paris.....	30.4	do.	East North Central: Columbus, Ohio.....	29.6	Jan. 12, 1929
Germany: Breslau.....	29.0	Jan. 5, 1929	Detroit, Mich.....	21.9	Jan. 4, 1929
Bremen.....	24.5	Jan. 26, 1929	Chicago, Ill.....	20.4	Dec. 20, 1928
Berlin.....	21.3	do.	West North Central: Des Moines, Iowa.....	22.7	Dec. 22, 1928
Leipzig.....	19.6	Jan. 19, 1929	Middle Atlantic: New York.....	20.6	Jan. 26, 1929
Hungary: Budapest.....	26.9	Feb. 16, 1929	Pacific: San Francisco.....	18.0	Dec. 1, 1928
Denmark: Copenhagen.....	18.8	Feb. 2, 1929			

¹ 10 days ended Feb. 20.

The latest available reports to the League of Nations—i. e., for the week ended March 30—indicated that the decline then was well under way in all sections of Europe, although the general death rates were still high in some places. For example, in 107 large cities of England and Wales the general death rate for the week ended March 30 was still 17 per 1,000. During the preceding week the rate had been 21.4 in the English cities, 20.1 in Brussels, 19.2 in Madrid, 14.9 in a group of 30 Swiss cities, and 13.5 in 49 German cities.

CURRENT WORLD PREVALENCE OF COMMUNICABLE DISEASES¹

The United States, March 3–April 6, 1929

The prevalence of certain important communicable diseases as indicated by weekly telegraphic reports from State health departments² to the Public Health Service is summarized below. This summary is prepared from the data published weekly in the Public Health Reports under the section entitled "Prevalence of Disease."

Meningococcus meningitis.—The attack rate of this disease during the month of March was the highest in the 16 years for which records are available. For the five weeks ended April 6, the number of cases totaled 1,561, representing a case rate (annual basis) of 17.4 per 100,000 population. The highest rate previously recorded was for March, 1918, when a rate of 13.3 was attained. In California the number of cases increased from 83 during the 5-week period ended March 2 to 120 during the 5-week period ended April 6; in Washington State the cases increased from 26 to 78; in Colorado from 37 to 51; in Idaho from 26 to 43; in Missouri from 97 to 136; in Michigan from 115 to 297; in Wisconsin from 32 to 58; and in Pennsylvania from 55 to 91. Significant decreases were recorded in Arizona, Minnesota, Oklahoma, Texas, and New Jersey.

Typhoid fever.—As usual, the incidence of typhoid fever increased slightly during the month of March. The rate, however, compared very favorably with the rate for the corresponding period in 1928 and was considerably lower than that for 1927. For the five weeks ended April 6 there were 782 cases reported.

Poliomyelitis.—Poliomyelitis incidence was at the seasonal low level during the month of March. Of the 77 cases reported, 12 occurred in California, 7 in New York, 6 each in Illinois and Michigan, and the remainder were scattered widely over the country. The rate for the five weeks ended April 6 was almost the same as the rate for the corre-

¹ From the Office of Statistical Investigations, U. S. Public Health Service.

² The numbers of States reporting for the various diseases are as follows: Typhoid fever, 41; poliomyelitis, 43; meningococcus meningitis, 42; smallpox, 42; measles, 38; diphtheria, 42; scarlet fever, 41; influenza, 31.

sponding period in 1926 and 1927, but was slightly higher than that for 1928.

Scarlet fever.—This disease apparently reached its maximum seasonal prevalence during the first two weeks of March. Reports indicated a slight decrease during the latter part of the month, which may be expected to continue through the summer months. During the five weeks ended April 6, the reported number of cases totaled 25,602, which was somewhat higher than the incidence during the corresponding period in 1926 and 1928, but was lower than in 1927.

Diphtheria.—The diphtheria rate showed little change during the month of March. Approximately 6,900 cases were reported during the five weeks ended April 6. For the corresponding periods in 1928 and 1927, the number of cases totaled approximately 8,000 and 8,700, respectively. The incidence of the disease is usually lowest during the summer months.

Measles.—The usual seasonal increase of measles continued through the month of March, although the disease was still considerably less prevalent than during any of the three preceding years. The increase over the preceding 5-week period was not confined to any particular section of the country, but was widespread. Reports showed the greatest increases in the Middle Atlantic and New England States and East and West North Central States.

Smallpox.—An unusual prevalence of smallpox still persisted in Maine during the month of March. For the week ended April 6 there were 14 cases, which was the largest number that had been reported since its second appearance in February, 1929. The disease was unusually prevalent during the latter part of 1928, but had apparently died out at the beginning of the year. In Vermont, likewise a State usually free from the disease, 34 cases were reported during the five weeks ended April 6. The disease continued quite prevalent in Arizona, Oklahoma, Arkansas, Illinois, and North Carolina. For the five weeks ended April 6 the number of cases in 42 States totaled 4,615 as against 5,991 cases in 1928, and 4,807 in 1927.

Influenza.—Influenza was less prevalent during the month of March than it had been at any time since the beginning of the outbreak in October. The total number of cases reported for the week ended April 6 was 8,566. As influenza in recent years has usually reached its peak in March or April, the recent low level stands out in striking contrast with the previous years.

Mortality from all causes.—The mortality rate from all causes in large cities as shown by the Bureau of the Census dropped gradually through the month of March, rose slightly in the first week of April, and then dropped again. For the week ended April 13, the rate (annual basis) was 13.5 per 1,000 inhabitants, as against 14.7 for the corresponding week in 1928, 13.6 in 1927, and 15.5 in 1926. It was

apparent that by this time the deaths from influenza and pneumonia had decreased to such a small number that the total death rate was not materially affected by them.

Foreign Countries¹

Influenza.—A review of the influenza epidemic in foreign countries is given elsewhere in this issue of PUBLIC HEALTH REPORTS.

Typhoid Fever.—At Lyon, France, and the surrounding communities on the banks of the Rhone River, 2,430 case of typhoid fever were reported between November 10, 1928, and January 7, 1929. Investigation showed that a leaking waste water outlet running between two filter beds of the Vassieux Waterworks was responsible for the outbreak. Chlorination of the water supply was begun and constructional improvements are now under way. Six antityphoid vaccination centers were established. It is reported, however, that the number of persons availing themselves of vaccination was very small. Supervision was also begun of the preparation and sale of contaminable foods.

Smallpox.—Almost everywhere on the European Continent the smallpox situation was very favorable during the year 1928. Many of the countries were entirely free from the disease, and in others only one to three cases were reported during the year. The incidence fell markedly in France and was lower in Poland and the western, northern, and central parts of the United Socialist Soviet Republics, as well as in the Ukraine and Caucasus, than for any previous year on record.

For the first time since 1921 the number of cases of smallpox in England and Wales showed a decline. The smallpox outbreak in Algeria finally declined in 1928 and marked decreases occurred in Morocco, Tunis, and Egypt. In Northern Rhodesia there was a serious outbreak during the year 1928; a total of 4,235 cases and 69 deaths were reported, as compared with 1,079 cases and 182 deaths in 1927. Reports indicate that the epidemic was most severe in November and December and would probably extend into the present year.

In India the improvement in the smallpox situation was most marked at the end of the year. Significant decreases occurred in the Province of Bihar and Orissa, and in the United and Central Provinces. An increase occurred in Assam, Burma, and the Bombay Presidency. Fatality rates are usually lower in southern than northern India. In Indo-China an excess incidence over the preceding year occurred at the end of 1928. For the month of December the cases totaled 243, as compared with 47 cases in December, 1927.

¹ Data from the Monthly Epidemiological Report of the Health Section of the League of Nations' Secretariat, Jan. 15, 1929, supplemented by information published in the Public Health Reports.

The incidence of smallpox in Java, Dutch East Indies, has continually decreased during the last four years. In 1924 there were 5,994 cases; in 1927, 308 cases and 8 deaths; and in 1928 only 158 cases and 11 deaths. Outbreaks of smallpox were reported in Japan during the first half of the year, but they all came to an end before the year was over. In Chosen, smallpox was less prevalent than in any other year for which records are available.

In Italy and Spain slight increases in the prevalence of smallpox were apparent during 1928. The disease remained widespread in Portugal. Smallpox was at one time or other fairly widespread in the Provinces of China, but the mortality does not seem to have been excessive during the year. During the months of November and December a marked increase of smallpox occurred at Hong Kong and Shanghai, China.

For the first time since 1922, smallpox appeared in the Panama Canal Zone. One case occurred at Colon on December 31, 1928. There were five subsequent cases in January, 1929. Two cases were reported in Panama City, the first of which was imported from Colombia, South America. A small outbreak of the disease occurred at Guayaquil, Ecuador, during the year. One death was reported at Rio de Janeiro and one at Callao, Peru.

In Canada the total number of cases for the first 11 months of 1928 was 3,069, as against 2,301 for the corresponding period in 1927. Only three deaths were reported for the year, giving a fatality rate of about 1 per 1,000. The disease was most prevalent in Quebec. The Atlantic coast Provinces were little affected, and the situation in Ontario improved markedly during the year.

The incidence of smallpox increased considerably in Iraq during the past year. In 1927 there were 743 cases and 339 deaths reported, and in 1928 there were 1,950 cases and 855 deaths. Reports did not indicate an unusual prevalence of the disease in any other countries in western Asia.

Plague.—The plague situation was relatively favorable everywhere during the year 1928. India remains the chief plague center; but even there the disease is milder than heretofore, and is not the important cause of mortality that it was in earlier years. During the closing months of the year the fatality rates in the United Provinces, Burma, Bihar and Orissa, and the Bombay Presidency were still high; but, on the other hand, in the Punjab, Madras Presidency, and Central Provinces the rates were very low. The epidemic in the Satara and Dharwar districts of the Bombay Presidency, which had been very severe and had continued unusually late in the season, had declined. The deaths from plague in the United Provinces during the last four weeks of December totaled 1,454 in 1928 as against 1,138 in 1927. The incidence was widespread there, but the eastern districts (Azam-

garth, Basti, and Ghazipur) have been more persistently infected than perhaps any other part of India.

During the month of January, 7 cases of plague occurred at Colombo, Ceylon; 1 fatal case at Makassar, Dutch East Indies; 3 cases at Bangkok, Siam; and 4 from 2 provincial towns of Siam. Thirteen cases of plague were reported from Pnompenh, the capital of Cambodia, French Indo-China, during the five weeks ended February 2. Sporadic cases of plague occurred at Baghdad, Iraq; between December 22, 1928, and January 26, 1929, 11 cases were reported.

In China the plague epidemic at Shansi was under control at the end of the year. Toward the end of January an epidemic of bubonic plague was reported at Siuyuah, in the Province at Shansi. Two small local outbreaks of an epidemic disease resembling pneumonic plague occurred in the Province of Kirin, in Central Manchuria, during January. In Nungan, a town on the Itung River, about 40 miles north of Changchun, 23 cases occurred between November 15 and December 8, 1928, all of which were fatal. A second outbreak occurred in the village of Cha-Chia-Yuantze, a trading center about 100 miles from Harbin. Seven cases occurred, all fatal on the second day of illness. No bacteriological confirmation of the diagnosis was possible.

In Egypt 2 cases of plague were reported at Alexandria during the three weeks ended January 29, and 12 cases at Beni-Suef between December 22 and the end of January. Plague in Nigeria was confined to Lagos, where nine cases were reported during the latter half of December and eight during January 1929. In Madagascar an increase usually occurs in the incidence of plague during the winter months; for the months of November and December there were 209 and 282 cases, respectively, and for the first half of January 188 cases were reported.

A case of plague was reported at Rosario, Argentina, on December 27, 1928, and a case on January 5, 1929. During December, five plague rats were found in Buenos Aires. Plague still persisted in Guayaquil, Ecuador, and in neighboring villages. Twenty-one cases were reported in November and ten cases during the first half of December.

AUTOMOBILE FATALITIES IN 78 LARGE CITIES, APRIL 26, 1925, TO APRIL 20, 1929

The Department of Commerce announces that for the 52-week period ended April 20, 1929, there were 7,659 deaths from automobile accidents in 78 large cities of the United States, as compared with 7,221 for the corresponding period ending in 1928, giving rates of 23.3 and 22.4 per 100,000, respectively—an increase of 4 per cent in the year.

For the four weeks ended April 20, 1929, there were 528 automobile fatalities in these cities, as compared with 530 in the corresponding period of 1928. The following table gives a comparison by 4-week periods for recent years:

Automobile fatalities for 78 cities by 4-week periods

1925		1926		1927		1928		1929	
4 weeks ended—	No.	4 weeks ended—	No.	4 weeks ended—	No.	4 weeks ended—	No.	4 weeks ended—	No.
		Jan. 30.....	428	Jan. 29.....	471	Jan. 28.....	531	Jan. 26.....	612
		Feb. 27.....	374	Feb. 26.....	441	Feb. 25.....	504	Feb. 23.....	466
		Mar. 27.....	346	Mar. 26.....	441	Mar. 24.....	421	Mar. 23.....	525
		Apr. 24.....	423	Apr. 23.....	495	Apr. 21.....	530	Apr. 20.....	528
May 23.....	421	May 22.....	493	May 21.....	530	May 19.....	532		
June 20.....	492	June 19.....	547	June 18.....	507	June 16.....	503		
July 18.....	493	July 17.....	482	July 16.....	573	July 14.....	516		
Aug. 15.....	467	Aug. 14.....	499	Aug. 13.....	510	Aug. 11.....	588		
Sept. 12.....	521	Sept. 11.....	558	Sept. 10.....	526	Sept. 8.....	620		
Oct. 10.....	527	Oct. 9.....	630	Oct. 8.....	662	Oct. 6.....	623		
Nov. 7.....	612	Nov. 6.....	676	Nov. 5.....	684	Nov. 3.....	622		
Dec. 5.....	623	Dec. 4.....	632	Dec. 3.....	619	Dec. 1.....	738		
1926		1927							
Jan. 2.....	550	Jan. 1.....	522	Dec. 31.....	624	Dec. 29.....	771		

COURT DECISIONS RELATING TO PUBLIC HEALTH

Provisions in bovine tuberculosis eradication law held constitutional.— (Ohio Supreme Court; *Kroplin v. Truax*, Director of Agriculture, et al., 165 N. E. 498; decided February 6, 1929.) An action was brought against defendants, officials of the State department of agriculture, to enjoin them from giving tuberculin tests to plaintiff's cattle and from condemning and ordering the slaughter of his cattle. The plaintiff also asked that sections 1121-10 and 1121-14 of the General Code and the rules of the State board of agriculture for compensation to owners for tuberculous cattle destroyed be adjudged in contravention of certain provisions of the State constitution. The following are the challenged code sections:

Sec. 1121-10. In order to secure indemnity as provided in the provisions of sections 1121-1 to 1121-25 of the General Code, the value of all cattle reacting to a tuberculin test applied under the direction of the department of agriculture shall be determined by an appraisal made by a representative chosen by the owner and a representative chosen by the department of agriculture. In the event of a disagreement as to the amount of the appraisal, a third disinterested person shall be selected, at the owner's expense, by the two to act with them in the appraisal of the cattle.

Sec. 1121-14. The State board of agriculture shall have authority to draft and adopt rules for the compensation to owners for tubercular cattle destroyed under the provisions of sections 1121-1 to 1121-25 of the General Code, which compensation shall be subject to the appropriations made available by the general assembly, and such rules shall provide for inspection where indemnity has been waived. The department of agriculture and all officers and employees

thereof shall observe said rules. Said rules may also define any of the terms herein used.

The plaintiff claimed that the statute and rules contravened (a) the constitutional provision conferring the right of every person to possess and protect property; (b) the provision that, when private property is taken for a public purpose, the owner shall be compensated in money, to be assessed by a jury; and (c) the provisions that all courts shall be open and that every person, for an injury done him in his lands, goods, person, or reputation, shall have remedy by due course of law. The decision of the supreme court was adverse to the plaintiff, the court saying in part:

Do sections 1121-10 and 1121-14 of the Riggs law violate the plaintiff in error's property right in his cattle, which may be killed if they are shown to be reactors?

The petition does not allege that any of these cattle have been condemned, nor even that they have been tested. It alleges that active testing is about to be resumed. * * * However, the petition does allege that the plaintiff has not waived indemnity for any of his cattle, and that, in the event his cattle are slaughtered, he will receive very inadequate compensation. He states that the defendants and their agents threaten to subject his cattle to the tuberculin test, and will order slaughtered the cattle reacting to such test. Hence we proceed to consider whether the plaintiff in error's property right will be injured if his cattle are destroyed and compensation is made in accordance with the statute.

After consideration of the record and the adjudicated cases, we held [hold] that the statute is constitutional, and that no property right of the plaintiff in error is violated thereby. Statutes of this nature, providing even drastic measures for the elimination of disease, whether in human beings, crops, stock, or cattle, are in general authorized under the police power. * * *

In providing measures for the protection of public health, the destruction or summary abatement of public nuisances inimical to the public health may be ordered. Unwholesome food may be destroyed; diseased cattle may be slaughtered. Such action is not a taking of private property for public use. * * *

* * * Hence Article I, section 1, and Article I, section 19, of the constitution of Ohio, are not violated.

* * * The mere fact that a partial indemnity is given does not affect the question. * * *

Since the statute does not contravene the private property rights of the plaintiff in error, neither does it violate Article I, section 16, of the bill of rights of the Ohio constitution, in that no appeal to a court and no assessment of value by a jury are provided. Under the sound doctrine which permits boards of health, without resort to the courts, in order to preserve the public health, to make summary destruction of property, this livestock may also be summarily destroyed in order to maintain the public health among the livestock of the State.

The court did not decide the question of the validity of the rules adopted by the State board of agriculture pursuant to section 1121-14 of the General Code, since plaintiff's cattle had not yet been tested and no reactors found.

Making of appropriations by county to defray expenses of State agents in tuberculin testing of cattle not enjoined.—(Ohio Supreme Court;

State ex rel. Honeyman v. Commissioners of Miami County, 165 N. E. 502; decided February 6, 1929.) Section 1121-17 of the General Code read as follows:

The county commissioners in their respective counties are hereby authorized and empowered to make such appropriations from the general funds of their county as will enable them to cooperate effectively with the cattle owners, the department of agriculture, and the United States Bureau of Animal Industry in the eradication of tuberculosis. The money so appropriated shall be placed in a fund to be used in the county in which it originated, subject to the approval of the department of agriculture.

The plaintiff asked that the commissioners of Miami County be enjoined from making appropriations, pursuant to the above section, to defray the salaries and expenses of State veterinarians, officers, and employees and other necessary expenses in making tuberculin tests in the county, upon the ground that the veterinarians, etc., were State officers and, if the money was so expended, it would have been expended for a State purpose and the county could not be forced to expend its funds for a general State purpose. The dismissal of the plaintiff's petition by the lower courts was sustained by the supreme court, the contention of plaintiff not being agreed with. The court said:

* * * The county is a subdivision of the State, subject to the legislative control of the State.

Where a State by enactment, in furtherance of its governmental purposes, imposes an obligation upon a county not in conflict with the State constitution, that obligation becomes one which the county must fairly meet. [Case cited.]

Counties are agencies of the State for governmental purposes. * * *

Under the Riggs law, sections 1121-1 to 1121-25, General Code, the testing program is not exclusively a State enterprise. It constitutes a joint enterprise to be carried on by the State and the county. All cattle owners and all milk consumers of Miami County will receive the benefit of the enactment, and under section 1121-17 not one cent of this particular appropriation will be expended outside the confines of Miami County.

These decisions [Albright v. Board of County Commissioners of Douglas County, 108 Kan. 184; 194 P. 913; Chambers v. Gilbert, 17 Tex. Civ. App. 106, 42 S. W. 630] upheld statutes much more drastic than section 1121-17, which simply provides for the payment of bills incurred by officers, agents, and employees of the State in making tuberculin tests of cattle owned and located within Miami County.

On the authority of these decisions and because of the general relation between the county and the State, we overrule the contention.

Since the funds are to be disbursed in accordance with valid statute, the plaintiff in error is not entitled to an injunction, and the judgment of the court of appeals will be affirmed.

DEATHS DURING WEEK ENDED APRIL 27, 1929

Summary of information received by telegraph from industrial insurance companies for the week ended April 27, 1929, and corresponding week of 1928. (From the Weekly Health Index, May 1, 1929, issued by the Bureau of the Census, Department of Commerce)

	Week ended Apr. 27, 1929	Corresponding week, 1928
Policies in force.....	74, 033, 990	71, 066, 816
Number of death claims.....	13, 594	14, 249
Death claims per 1,000 policies in force, annual rate.....	9. 6	10. 5

Deaths from all causes in certain large cities of the United States during the week ended April 27, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928. (From the Weekly Health Index, May 1, 1929, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Apr. 27, 1929		Annual death rate per 1,000, corre- sponding week, 1928	Deaths under 1 year		Infant mortality rate, week ended Apr. 27, 1929 ²
	Total deaths	Death rate ¹		Week ended Apr. 27, 1929	Corre- sponding week, 1928	
Total (63 cities).....	7, 431	13. 1	14. 7	726	843	82
Akron.....	43			6	4	62
Albany.....	45	19. 5	20. 0	3	6	59
Atlanta.....	50	10. 2	15. 4	4	5	42
White.....	22			1	3	
Colored.....	28	(³)	(³)	3	2	
Baltimore.....	212	13. 3	14. 9	12	22	38
White.....	161			10	15	40
Colored.....	51	(³)	(³)	2	7	32
Birmingham.....	60	14. 1	20. 0	6	13	54
White.....	36			3	4	45
Colored.....	34	(³)	(³)	3	9	69
Boston.....	233	15. 2	16. 9	24	28	66
Bridgeport.....	33			3	7	52
Buffalo.....	173	16. 3	15. 5	23	21	99
Cambridge.....	29	12. 1	14. 5	2	4	36
Camden.....	28	10. 8	16. 6	8	5	138
Canton.....	22	10. 3	12. 1	0	5	0
Chicago.....	758	12. 6	15. 1	81	96	72
Cincinnati.....	129			11	22	64
Cleveland.....	180	9. 3	10. 5	18	28	53
Columbus.....	87	15. 2	16. 8	8	7	75
Dallas.....	47	11. 3	9. 6	6	1	
White.....	35			3	1	
Colored.....	12	(³)	(³)	3	0	
Denver.....	65	11. 6	17. 9	5	9	48
Des Moines.....	30	10. 3	10. 0	2	1	36
Detroit.....	341	12. 9	13. 0	50	40	80
Duluth.....	19	8. 5	15. 7	0	2	0
El Paso.....	47	20. 9	17. 8	5	9	
Erie.....	20			2	3	41
Fall River.....	26	10. 9	11. 3	3	5	56
Flint.....	30	10. 5	11. 6	4	10	49
Fort Worth.....	37	11. 3	9. 8	4	4	
White.....	32			4	4	
Colored.....	5	(³)	(³)	0	0	
Grand Rapids.....	35	11. 1	11. 1	2	3	30
Houston.....	51			5	10	
White.....	30			4	6	
Colored.....	21	(³)	(³)	1	4	
Indianapolis.....	106	14. 5	14. 5	10	8	80
White.....	88			6	5	56
Colored.....	18	(³)	(³)	4	3	239
Jersey City.....	88	14. 2	17. 9	7	13	54

¹ Annual rate per 1,000 population.

² Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

³ Data for 70 cities.

⁴ Deaths for week ended Friday.

⁵ In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 18; Birmingham, 39; Dallas, 18; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Knoxville, 18; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 29; Richmond, 32; and Washington, D. C., 29.

Deaths from all causes in certain large cities of the United States during the week ended April 27, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928—Continued

City	Week ended Apr. 27, 1929		Annual death rate per 1,000, corresponding week, 1928	Deaths under 1 year		Infant mortality rate, week ended Apr. 27, 1929
	Total deaths	Death rate		Week ended Apr. 27, 1929	Corresponding week, 1928	
Kansas City, Kans.	32	14.1	23.0	3	5	66
White	27			2	3	50
Colored	5	(¹)	(¹)	1	2	179
Kansas City, Mo.	107	14.3	16.2	6	5	51
Knoxville	20	9.9	16.9	1	1	22
White	13			1	1	24
Colored	7	(¹)	(¹)	0	0	0
Los Angeles	257			10	27	56
Louisville	78	12.4	13.5	2	4	18
White	61			1	4	9
Colored	17	(¹)	(¹)	1	0	63
Lowell	24			0	2	0
Lynn	26	12.9	15.9	2	7	55
Memphis	82	22.5	20.1	7	3	83
White	51			6	1	114
Colored	31	(¹)	(¹)	1	2	31
Milwaukee	111	10.7	14.3	10	21	83
Minneapolis	107	12.3	11.8	12	8	74
Nashville	43	16.1	15.7	4	6	65
White	25			2	6	43
Colored	18	(¹)	(¹)	2	1	126
New Bedford	35			1	6	21
New Haven	55	15.3	15.6	1	11	15
New Orleans	137	16.7	17.8	20	18	99
White	85			11	8	78
Colored	52	(¹)	(¹)	9	10	151
New York	1,543	13.4	15.3	160	172	68
Bronx Borough	186	10.2	12.6	16	13	47
Brooklyn Borough	508	11.5	13.4	67	73	68
Manhattan Borough	656	19.6	20.7	61	67	75
Queens Borough	145	8.9	11.7	11	23	45
Richmond Borough	48	16.7	19.8	5	6	91
Newark, N. J.	134	14.8	12.0	14	7	74
Oakland	56	10.7	11.4	2	7	22
Oklahoma City	27			2	2	49
Omaha	44	10.3	12.2	5	3	58
Paterson	37	13.4	13.7	1	2	18
Philadelphia	509	12.9	14.9	46	65	85
Pittsburgh	162	12.6	16.6	20	28	66
Portland, Oreg.	68			3	3	34
Providence	81	14.8	12.6	7	6	62
Richmond	48	12.9	14.3	4	7	36
White	31			1	4	21
Colored	17	(¹)	(¹)	3	3	125
Rochester	92	13.7	13.2	2	4	17
St. Louis	230	14.2	15.6	16	18	54
St. Paul	68			3	3	31
Salt Lake City	41	15.5	14.8	5	4	77
San Antonio	70	16.8	19.4	11	26	0
San Diego	38	16.6	16.2	0	4	64
San Francisco	162	14.5	14.5	14	7	30
Schenectady	24	13.4	15.1	2	2	32
Seattle	71	9.7	10.4	3	2	36
Somerville	16	8.1	12.7	1	4	52
Spokane	26	12.5	12.9	2	1	66
Springfield, Mass.	44	15.4	10.1	4	2	60
Syracuse	48	12.6	20.5	5	9	103
Toledo	91	15.2	13.2	11	7	100
Trenton	46	17.3	12.4	6	3	70
Washington, D. C.	132	12.5	15.1	12	9	42
White	80			5	5	133
Colored	52	(¹)	(¹)	7	4	51
Waterbury	17			2	4	28
Wilmington, Del.	28	11.4	11.0	1	3	25
Worcester	54	14.3	17.2	2	5	47
Yonkers	17	7.3	10.8	2	0	67
Youngstown	38	11.4	11.1	4	3	

¹ In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Knoxville, 15; Louisville, 17; Memphis, 33; Nashville, 30; New Orleans, 26; Richmond, 22; and Washington, D. C., 25.

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

Reports for Weeks Ended April 27, 1929, and April 28, 1928

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended April 27, 1929, and April 28, 1928

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928
New England States:								
Maine.....	6	1	1	-----	186	31	0	0
New Hampshire.....	2	1	6	-----	41	30	0	0
Vermont.....	1	-----	-----	-----	3	32	0	0
Massachusetts.....	98	92	25	29	501	1,397	10	3
Rhode Island.....	9	8	1	-----	115	361	0	0
Connecticut.....	21	29	3	17	484	354	2	3
Middle Atlantic States:								
New York.....	347	289	114	1155	1,154	3,045	24	49
New Jersey.....	105	107	9	28	332	1,499	10	3
Pennsylvania.....	177	169	-----	-----	1,694	2,024	8	4
East North Central States:								
Ohio.....	75	145	34	114	2,195	702	11	11
Indiana.....	8	15	-----	114	423	650	1	0
Illinois.....	168	109	119	227	1,838	173	13	13
Michigan.....	86	60	5	21	796	1,126	76	6
Wisconsin.....	14	18	15	780	1,314	49	1	4
West North Central States:								
Minnesota.....	23	27	1	9	636	105	2	0
Iowa.....	5	5	-----	-----	82	18	2	0
Missouri.....	33	19	7	29	240	527	14	7
North Dakota.....	16	11	-----	132	163	26	3	1
South Dakota.....	5	-----	-----	13	31	11	0	0
Nebraska.....	10	7	1	15	88	128	3	0
Kansas.....	9	7	5	4	379	167	5	1
South Atlantic States:								
Delaware.....	2	-----	-----	-----	10	35	0	0
Maryland.....	16	30	15	38	27	728	1	0
District of Columbia.....	25	17	2	3	13	168	1	0
West Virginia.....	10	19	13	12	581	207	1	2
North Carolina.....	20	19	-----	36	1,384	1	0	0
South Carolina.....	13	13	325	543	9	401	0	0
Georgia.....	5	6	28	102	21	150	1	1
Florida.....	11	7	-----	1	48	94	1	0
East South Central States:								
Kentucky.....	-----	9	-----	26	39	319	0	0
Tennessee.....	7	17	26	339	78	784	3	2
Alabama.....	17	11	63	181	84	426	0	0
Mississippi.....	3	9	-----	-----	-----	-----	-----	1

¹ New York City only.

² Week ended Friday.

*Cases of certain communicable diseases reported by telegraph by State health officers
for weeks ended April 27, 1929, and April 28, 1928—Continued*

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928
West South Central States:								
Arkansas.....	3	2	0	351	27	393	6	1
Louisiana.....	21	13	47	45	71	355	6	1
Oklahoma ¹	5	21	63	730	50	452	1	3
Texas.....	23	15	72	59	128	103	0	0
Mountain States:								
Montana.....	5	2			149	4	6	0
Idaho.....					3		3	1
Wyoming.....		1			34	14	4	0
Colorado.....	6	13			6	96	9	1
New Mexico.....	3	8	3	3	9	64	0	0
Arizona.....		7		1		8		2
Utah ¹	2	6	6	7	6		4	1
Pacific States:								
Washington.....	4	8		1	205	165	11	1
Oregon.....	3	5	29	16	291	90	2	3
California.....	46	88	48	27	88	111	19	5

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928
New England States:								
Maine.....	1	0	12	24	0	0	1	1
New Hampshire.....	0	0	10	9	1	0	0	0
Vermont.....	0	0	12	10	7	0	0	0
Massachusetts.....	0	0	266	240	1	0	6	4
Rhode Island.....	0	0	14	38	0	0	0	0
Connecticut.....	1	0	46	77	3	0	1	0
Middle Atlantic States:								
New York.....	1	0	522	722	3	2	12	6
New Jersey.....	0	0	191	253	0	6	3	5
Pennsylvania.....	2	2	390	439	0	2	17	6
East North Central States:								
Ohio.....	2	1	290	219	50	25	4	6
Indiana.....	0	0	234	70	24	111	2	2
Illinois.....	1	0	452	314	43	37	4	12
Michigan.....	2	0	422	301	77	27	9	4
Wisconsin.....	0	0	190	122	5	9	5	2
West North Central States:								
Minnesota.....	1	1	120	120	5	2	1	1
Iowa.....	0	0	98	78	39	51	1	2
Missouri.....	0	0	75	108	15	44	4	1
North Dakota.....	0	0	29	39	17	3	0	1
South Dakota.....	0	1	7	25	18	11	0	0
Nebraska.....	0	0	99	63	36	52	1	0
Kansas.....	1	0	127	159	42	104	1	3
South Atlantic States:								
Delaware.....	0	0	4	0	0	0	0	0
Maryland ¹	0	1	53	100	0	0	4	5
District of Columbia.....	0	0	15	51	0	1	1	0
West Virginia.....	7	0	13	27	8	40	9	9
North Carolina.....	0	1	24	16	20	103	4	1
South Carolina.....	2	1	2	12	7	5	11	7
Georgia.....	0	0	8	14	0	0	8	4
Florida.....	5	0	5	4	1	12	7	4
East South Central States:								
Kentucky.....	0	0	66	38	9	24	5	5
Tennessee.....	0	1	19	35	7	48	6	4
Alabama.....	3	0	0	11	1	5	15	2
Mississippi.....	1	0	9	11	1	0	6	10
West South Central States:								
Arkansas.....	1	0	6	12	8	15	6	4
Louisiana.....	0	0	41	10	5	20	17	9
Oklahoma ¹	0	0	24	61	57	97	4	8
Texas.....	0	0	67	53	52	43	11	5

¹ Week ended Friday.

² Figures for 1929 are exclusive of Oklahoma City and Tulsa.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended April 27, 1929, and April 28, 1928—Continued

Division and State	Pollomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928	Week ended Apr. 27, 1929	Week ended Apr. 28, 1928
Mountain States:								
Montana.....	0	1	35	8	44	30	1	0
Idaho.....	0	0	8	9	10	7	0	0
Wyoming.....	0	0	7	20	22	1	0	1
Colorado.....	0	1	19	65	9	2	0	0
New Mexico.....	0	0	5	29	1	3	4	1
Arizona.....	0	0	5	2	10	6	0	1
Utah ¹	0	1	5	10	10	11	0	0
Pacific States:								
Washington.....	1	2	28	38	56	35	5	0
Oregon.....	1	0	15	2	33	63	1	10
California.....	1	6	437	122	87	19	8	3

¹ Week ended Friday.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Menin- gococ- cus menin- gitis	Diph- theria	Influ- enza	Ma- laria	Meas- les	Pellag- ra	Polio- mye- litis	Scarlet fever	Small- pox	Ty- phoid fever
January, 1929										
West Virginia.....	6	77	26,401		402		2	158	36	14
March, 1929										
Idaho.....	58	4	32		30		1	48	116	4
Kansas.....	22	55	129		1,350		0	817	262	11
Mississippi.....	6		4,377	3,476	2,997	790	1	59	2	46
Montana.....	12	24	4		454		0	96	25	16
Oklahoma ¹	23	57	857	109	242	16	0	194	432	22
Oregon.....	3	50	453		954		2	249	185	8
South Carolina.....		126	3,877	458	37	351	2	74	9	28
Virginia.....	3	94	2,329	31	807	18	1	136	14	8
Washington.....	36	45	197		459		5	134	228	15
West Virginia.....	6	51	248		1,304		2	137	69	47

¹ Exclusive of Oklahoma City and Tulsa.

January, 1929		March, 1929—Continued	
West Virginia:	Cases	Dysentery:	Cases
Chicken pox.....	244	Mississippi.....	56
Whooping cough.....	159	Mississippi (bacillary).....	247
		Oklahoma ¹	2
March, 1929		Virginia.....	33
Ectulism:		German measles:	
Oregon.....	3	Kansas.....	1,050
Washington.....	2	Montana.....	2
Chicken pox:		Washington.....	31
Idaho.....	18	Hookworm disease:	
Kansas.....	599	Mississippi.....	339
Mississippi.....	1,097	South Carolina.....	197
Montana.....	94	Impetigo contagiosa:	
Oklahoma ¹	74	Oregon.....	11
Oregon.....	264	Washington.....	4
South Carolina.....	435	Lethargic encephalitis:	
Virginia.....	617	Kansas.....	1
Washington.....	444	Oregon.....	1
West Virginia.....	229	Washington.....	3
Dengue:		Mumps:	
South Carolina.....	5	Idaho.....	92

¹ Exclusive of Oklahoma City and Tulsa.

March, 1929—Continued		March, 1929—Continued	
Mumps—Continued	Cases	Septic sore throat—Continued.	Cases
Kansas.....	772	Oklahoma ¹	17
Mississippi.....	562	Oregon.....	10
Montana.....	26	Washington.....	1
Oklahoma ¹	104	Tetanus:	
Oregon.....	170	Oklahoma.....	3
South Carolina.....	174	Trachoma:	
Washington.....	347	Idaho.....	1
Ophthalmia neonatorum:		Mississippi.....	4
Mississippi.....	19	Oklahoma ¹	8
Oklahoma ¹	2	Washington.....	1
South Carolina.....	19	Tularaemia:	
Paratyphoid fever:		Oregon.....	1
South Carolina.....	4	South Carolina.....	2
Puerperal septicaemia:		Typhus fever:	
Mississippi.....	24	Virginia.....	1
Washington.....	2	Vincent's angina:	
Rabies in animals:		Kansas.....	6
Idaho.....	1	Oklahoma ¹	1
Mississippi.....	12	Oregon.....	8
Oregon.....	3	Washington.....	1
South Carolina.....	34	Whooping cough:	
Washington.....	1	Idaho.....	4
Rabies in man:		Kansas.....	302
Mississippi.....	1	Mississippi.....	1,386
Rocky Mountain spotted or tick fever:		Montana.....	33
Oregon.....	1	Oklahoma ¹	121
Scabies:		Oregon.....	15
Oregon.....	20	South Carolina.....	628
Washington.....	2	Virginia.....	702
Septic sore throat:		Washington.....	260
Kansas.....	4	West Virginia.....	223
Montana.....	1		

¹ Exclusive of Oklahoma City and Tulsa.

Number of Cases of Certain Communicable Diseases Reported for the Month of February, 1929, by State Health Officers

	Chick- en pox	Diph- theria	Mea- sles	Mumps	Scarlet fever	Small- pox	Tuber- culosis	Ty- phoid fever	Whoop- ing cough
Maine.....	93	5	1,229	101	108	21	20	2	64
New Hampshire.....		5			37	0		0	
Vermont.....	99	17	195	261	37	13	9	2	108
Massachusetts.....	683	331	1,517	358	1,038	0	428	19	488
Rhode Island.....	25	54	383	3	147	0	27	3	24
Connecticut.....	288	106	1,397	346	207	2	123	0	96
New York.....	2,100	994	3,549	1,178	1,971	0	1,685	44	1,197
New Jersey.....	993	449	976		610	0	393	6	585
Pennsylvania.....	2,356	570	7,239	1,943	1,737	1	647	41	1,638
Ohio.....	1,151	265	4,163	396	1,224	178	692	27	1,638
Indiana.....	406	110	1,253	67	861	225	191	7	267
Illinois.....	1,042	536	2,791	446	1,792	486	708	18	567
Michigan.....	764	317	1,406	459	1,427	146	403	12	883
Wisconsin.....	1,221	96	3,129	525	839	51	167	29	827
Minnesota.....	576	101	1,598		679	13	126	14	324
Iowa.....	142	42	30	343	676	175	48	7	127
Missouri.....	314	215	1,123	210	428	198	213	7	258
North Dakota.....	29	28	127	9	165	4	10	0	33
South Dakota.....	60	12	262	19	147	113	2	0	26
Nebraska.....	161	80	208	113	555		18	5	62
Kansas.....	516	62	467	530	687	229	142	6	233
Delaware.....	5		63	12	11	0	11	0	14
Maryland.....	406	98	434	429	278	0	269	14	382
District of Columbia.....	139	45	19		96	0	85	1	102
Virginia.....	534	107	677		190	22	193	9	594
West Virginia.....	143	63	558		109	73	38	25	126

¹ Pulmonary.

Number of Cases of Certain Communicable Diseases Reported for the Month of February, 1929, by State Health Officers—Continued

	Chick- en pox	Diph- theria	Meas- les	Mumps	Scarlet fever	Small- pox	Tuber- culosis	Ty- phoid fever	Whoop- ing cough
North Carolina.....	768	134	343		202	66		6	735
South Carolina.....	264	130	21	31	42	24	121	19	237
Georgia ²									
Florida.....	98	62	72	10	47	4	89	24	82
Kentucky ³									
Tennessee.....	170	52	14	66	256	10	155	19	102
Alabama.....	136	119	490	25	107	21	138	16	111
Mississippi.....	917	52	2,377	404	67	6	290	35	957
Arkansas.....	135	45	284	175	107	18	119	15	61
Louisiana.....	94	76	362	3	161	25	114	35	13
Oklahoma ⁴	97	79	19	36	131	185	24	16	78
Texas ⁵									
Montana.....	54	11	596	12	136	66	11	2	33
Idaho.....	59	7	23	55	37	130	12	13	7
Wyoming.....	49	6	48	25	58	8	1	0	1
Colorado.....	260	65	24	100	130	137	39	7	63
New Mexico ³									
Arizona.....	32	19	35	7	31	21	75	11	17
Utah ⁴									
Nevada ⁵									
Washington.....	366	50	454	291	158	192	207	12	189
Oregon.....	212	48	463	149	185	188	37	3	24
California.....	2,140	286	224	1,326	1,720	361	927	39	748

¹ Pulmonary.² Report not received at time of going to press.³ Reports received weekly.⁴ Exclusive of Oklahoma City and Tulsa.⁵ Reports received annually.

Case Rates per 1,000 Population (Annual Basis) for the Month of February, 1929

	Chick- en pox	Diph- theria	Meas- les	Mumps	Scarlet fever	Small- pox	Tuber- culosis	Ty- phoid fever	Whoop- ing cough
Maine.....	1.52	0.08	20.10	1.65	1.77	0.34	0.33	0.03	1.05
New Hampshire.....		.14			1.06	.00		.00	
Vermont.....	3.66	.63	7.21	9.65	1.37	.48	.33	.07	3.99
Massachusetts.....	2.05	.99	4.56	1.08	3.18	.00	1.29	.03	1.47
Rhode Island.....	.45	.97	6.86	.05	2.63	.00	.48	.05	.43
Connecticut.....	2.21	.81	10.72	2.66	1.59	.02	.94	.00	.73
New York.....	2.34	1.11	3.96	1.31	2.20	.00	1.88	.05	1.34
New Jersey.....	3.32	1.50	3.27		2.04	.00	1.32	.02	1.96
Pennsylvania.....	3.08	.74	9.45	2.54	2.27	.00	.84	.05	2.16
Ohio.....	2.16	.50	7.82	.74	3.30	.33	1.30	.05	3.11
Indiana.....	1.65	.45	5.10	.27	3.51	.92	.78	.03	1.09
Illinois.....	1.81	.93	4.85	.78	3.12	.85	1.23	.03	.99
Michigan.....	2.12	.88	3.91	1.28	3.96	.41	1.12	.03	2.45
Wisconsin.....	5.33	.42	13.65	2.29	3.66	.22	.73	.13	3.61
Minnesota.....	2.72	.48	7.55		2.21	.06	.60	.07	1.53
Iowa.....	.76	.23	.16	1.84	3.62	.94	.26	.04	.68
Missouri.....	1.16	.79	4.14	.77	1.58	.73	.79	.03	.95
North Dakota.....	.59	.57	2.58	.18	3.35	.08	.20	.00	1.08
South Dakota.....	1.26	.22	4.80	.35	2.69	2.07	.04	.00	.48
Nebraska.....	1.48	.73	1.91	1.04	5.09		1.07	.05	.57
Kansas.....	3.65	.44	3.30	3.75	4.86	1.62	1.00	.04	1.65
Delaware.....	.27		3.35	.64	.59	.00	1.05	.00	.74
Maryland.....	3.24	.78	3.48	3.42	2.22	.00	2.14	.11	3.05
District of Columbia.....	3.21	1.04	.44		2.22	.00	1.96	.02	2.36
Virginia.....	2.67	.54	3.39		.95	.11	1.97	.05	2.52
West Virginia.....	1.06	.47	4.15		.81	.54	.28	.19	.93
North Carolina.....	3.30	.59	1.50		.58	.29		.03	3.22
South Carolina.....	1.83	.90	.15	.21	.29	.17	.84	.13	1.64
Georgia ²									
Florida.....	.88	.55	.64	.09	.42	.04	.80	.21	.73
Kentucky ³									
Tennessee.....	.82	.27	.07	.34	1.32	.65	.80	.16	.53
Alabama.....	.68	.60	2.46	.13	.54	.11	.69	.08	.56
Mississippi.....	6.68	.88	17.30	2.94	.49	.04	2.11	.25	6.97

¹ Pulmonary.² Report not received at time of going to press.³ Reports received weekly.

**Case Rates per 1,000 Population (Annual Basis) for the Month of February,
1929—Continued**

	Chick- en pox	Diph- theria	Mea- sles	Mumps	Scarlet fever	Small- pox	Tuber- culosis	Ty- phoid fever	Whoop- ing cough
Arkansas.....	0.90	0.30	1.88	1.16	0.71	0.12	1.13	0.10	0.40
Louisiana.....	.62	.50	2.40	.62	1.07	.17	1.78	.23	.69
Oklahoma ¹58	.47	.11	.22	.79	1.11	.14	.10	.47
Texas ²									
Montana.....	1.28	.26	14.15	.28	3.23	1.57	.26	.05	.78
Idaho.....	1.38	.16	.54	1.28	.86	3.04	1.05	.30	.18
Wyoming.....	2.52	.31	2.47	1.29	2.99	.41	.06	.00	.06
Colorado.....	3.06	.77	.28	1.18	1.53	1.61	.46	.08	.74
New Mexico ¹									
Arizona.....	.85	.51	.93	.19	.83	.56	2.00	.29	.45
Utah ¹									
Nevada ¹									
Washington.....	2.96	.40	3.67	2.35	1.28	1.55	1.67	.10	1.53
Oregon.....	3.02	.68	6.60	2.13	2.64	2.68	.53	.04	.34
California.....	5.96	.80	.62	3.69	4.79	1.01	2.58	.11	2.08

¹ Pulmonary.² Reports received weekly.¹ Exclusive of Oklahoma City and Tulsa.² Reports received annually.

PLAGUE-INFECTED GROUND SQUIRRELS IN CALIFORNIA

The director of public health of the State of California reports that on April 22, 1929, plague infection was proved in one lot of five ground squirrels from a ranch 37 miles east of Monterey, Calif. These squirrels were from the same place as the two lots of infected squirrels referred to in the Public Health Reports of April 26, 1929, page 1029.

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 98 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of more than 31,565,000. The estimated population of the 91 cities reporting deaths is more than 29,995,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended April 20, 1929, and April 21, 1928

	1929	1928	Estimated expectancy
<i>Cases reported</i>			
Diphtheria:			
46 States.....	1,322	1,506	
98 cities.....	817	826	849
Measles:			
45 States.....	13,508	19,872	
98 cities.....	5,446	8,085	
Meningococcus meningitis:			
45 States.....	296	131	
98 cities.....	139	79	
Poliomyelitis:			
46 States.....	15	20	
Scarlet fever:			
46 States.....	4,549	4,249	
98 cities.....	1,629	1,495	1,333
Smallpox:			
46 States.....	1,018	1,116	
98 cities.....	87	133	87
Typhoid fever:			
46 States.....	210	185	
98 cities.....	50	38	38
<i>Deaths reported</i>			
Influenza and pneumonia:			
91 cities.....	815	1,313	
Smallpox:			
91 cities.....	0	0	

City reports for week ended April 20, 1929

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence the number of cases of the disease under consideration that may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding weeks of the preceding years. When the reports include several epidemics, or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during non-epidemic years.

If the reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1920 is included. In obtaining the estimated expectancy the figures are smoothed when necessary to avoid abrupt deviation from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1928, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland.....	78,600	3	1	0	2	0	27	1	2
New Hampshire:									
Concord.....	(1)	0	1	0	-----	0	5	0	1
Vermont:									
Barre.....	(1)	0	0	0	-----	1	0	1	0
Massachusetts:									
Boston.....	799,200	39	35	29	1	0	17	13	26
Fall River.....	134,300	0	3	4	2	2	0	0	1
Springfield.....	149,800	5	2	5	-----	0	1	1	0
Worcester.....	197,600	10	4	3	-----	0	6	1	1
Rhode Island:									
Pawtucket.....	73,100	1	1	3	-----	0	6	0	1
Providence.....	286,300	0	8	9	-----	1	73	0	11
Connecticut:									
Bridgeport.....	(1)	2	5	1	-----	0	34	1	3
Hartford.....	172,300	8	5	3	1	0	48	9	3
New Haven.....	187,900	25	2	6	-----	0	8	2	2
MIDDLE ATLANTIC									
New York:									
Buffalo.....	555,800	12	10	19	-----	1	40	1	27
New York.....	6,017,500	302	248	291	20	13	73	0	145
Rochester.....	328,200	6	9	1	1	0	34	25	7
Syracuse.....	199,300	39	5	3	-----	0	3	7	5
New Jersey:									
Camden.....	135,400	0	7	20	-----	0	12	0	3
Newark.....	473,600	45	13	36	1	0	7	60	9
Trenton.....	139,000	8	3	4	-----	0	4	0	3
Pennsylvania:									
Philadelphia.....	2,064,200	129	64	21	6	5	69	8	53
Pittsburgh.....	673,800	55	17	16	-----	2	36	9	23
Reading.....	115,400	5	2	0	-----	0	24	0	2
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	413,700	11	8	5	-----	1	4	1	3
Cleveland.....	1,010,300	67	24	23	7	6	651	6	12
Columbus.....	299,000	7	3	2	-----	0	37	1	9
Toledo.....	313,200	16	3	3	5	5	75	5	8
Indiana:									
Fort Wayne.....	105,300	5	3	3	-----	0	34	0	2
Indianapolis.....	382,100	35	4	3	-----	3	165	10	15
South Bend.....	86,100	0	1	1	-----	0	12	0	4
Terre Haute.....	73,500	8	1	1	-----	0	11	0	0
Illinois:									
Chicago.....	3,157,400	111	68	89	5	3	1,032	29	70
Springfield.....	67,200	3	1	1	1	1	9	0	0
Michigan:									
Detroit.....	1,378,900	54	43	56	2	4	57	58	48
Flint.....	148,800	14	3	1	-----	1	10	1	4
Grand Rapids.....	164,200	0	3	3	-----	0	137	2	2

¹ No estimate of population made.

City reports for week ended April 20, 1929—Continued

Division, State, and city	Population July 1, 1928, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, esti- mated expec- tancy	Cases re- ported	Cases re- ported	Deaths re- ported			
EAST NORTH CENTRAL— continued									
Wisconsin:									
Kenosha.....	56,500	9	1	0	—	0	23	0	0
Milwaukee.....	544,200	43	13	3	4	3	943	20	15
Racine.....	74,400	32	3	0	—	0	53	0	0
Superior.....	(1)	2	0	0	—	0	0	0	2
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	116,800	5	1	1	—	0	1	51	3
Minneapolis.....	453,900	56	14	7	—	4	267	72	8
St. Paul.....	(1)	15	11	0	—	0	452	44	8
Iowa:									
Davenport.....	(1)	4	0	1	—	—	0	0	—
Des Moines.....	151,900	0	1	0	—	—	0	0	—
Sioux City.....	80,000	4	1	0	—	—	4	0	—
Waterloo.....	37,100	1	0	0	—	—	7	28	—
Missouri:									
Kansas City.....	391,000	32	5	1	—	1	159	3	9
St. Joseph.....	78,500	0	1	0	—	0	14	0	2
St. Louis.....	848,100	24	39	39	1	1	16	5	—
North Dakota:									
Fargo.....	(1)	3	0	0	—	0	50	0	2
Grand Forks.....	(1)	1	0	0	—	—	0	0	—
South Dakota:									
Aberdeen.....	(1)	0	0	1	—	—	0	0	—
Sioux Falls.....	(1)	0	0	5	—	—	0	0	—
Nebraska:									
Omaha.....	222,800	4	2	10	—	0	68	1	4
Kansas:									
Topeka.....	62,800	6	1	0	—	0	—	0	0
Wichita.....	99,300	30	1	0	—	0	66	22	0
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	128,500	2	2	2	—	0	12	0	6
Maryland:									
Baltimore.....	830,400	43	25	17	6	1	4	161	27
Cumberland.....	(1)	0	0	0	—	0	2	4	4
Frederick.....	(1)	0	1	0	—	0	0	1	0
District of Columbia:									
Washington.....	552,000	29	12	7	—	0	19	0	18
Virginia:									
Lynchburg.....	38,600	7	1	0	—	0	5	167	1
Norfolk.....	184,200	11	1	0	—	0	10	24	2
Richmond.....	194,400	2	2	1	—	6	4	2	4
Roanoke.....	64,600	3	0	2	—	1	0	2	0
West Virginia:									
Charleston.....	55,200	5	0	0	—	0	176	0	0
Wheeling.....	(1)	3	1	1	—	0	170	2	1
North Carolina:									
Raleigh.....	(1)	7	0	1	—	0	0	0	1
Wilmington.....	39,100	22	1	0	—	0	0	0	0
Winston-Salem.....	80,000	2	0	2	—	0	0	0	1
South Carolina:									
Charleston.....	75,900	1	0	0	11	0	0	0	3
Columbia.....	50,600	10	0	0	—	0	0	7	1
Greenville.....	(1)	1	1	0	—	0	0	5	0
Georgia:									
Atlanta.....	255,100	11	2	1	4	2	13	1	9
Brunswick.....	(1)	2	0	0	—	0	0	0	0
Savannah.....	99,900	2	0	0	1	0	0	0	3
Florida:									
Miami.....	156,700	2	2	0	—	0	35	0	3
St. Petersburg.....	53,300	—	0	—	—	0	—	—	0
Tampa.....	113,400	3	0	1	—	1	1	0	1

1No estimate of population made.

City reports for week ended April 20, 1929—Continued

Division, State, and city	Population July 1, 1928, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	59,000	0	1	0		0	0	0	0
Tennessee:									
Memphis.....	190,200	8	2	0		0	1	0	3
Nashville.....	139,600	5	0	0		0	1	0	5
Alabama:									
Birmingham.....	222,400	5	1	1	3	2	2	6	12
Mobile.....	69,600	1	0	0		0	3	0	1
Montgomery.....	63,100	8	0	0	1		1	0	
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	(1)	1	1	0			0	1	
Little Rock.....	79,200	0	0	0		1	1	1	1
Louisiana:									
New Orleans.....	429,400	0	7	11	4	6	8	0	9
Shreveport.....	81,300	4	0	0		0	8	0	2
Oklahoma:									
Oklahoma City.....	(1)	0	1	2	5	0	0	0	6
Tulsa.....	170,500	18	1	0			11	3	
Texas:									
Dallas.....	217,800	1	4	4		1	23	0	2
Fort Worth.....	170,600	4	1	1		1	11	0	6
Galveston.....	50,600	0	0	2		0	0	0	0
Houston.....	(1)	0	2	4		1	5	0	4
San Antonio.....	218,100	0	1	5		4	1	0	2
MOUNTAIN									
Montana:									
Billings.....	(1)	12	0	0		0	0	0	0
Great Falls.....	(1)	8	1	0		0	15	3	1
Helena.....	(1)	0	0	0		0	0	0	0
Missoula.....	(1)	0	0	0		0	0	0	1
Idaho:									
Boise.....	(1)	0	0	0		0	0	0	0
Colorado:									
Denver.....	294,200	51	10	5	7	1	1	26	8
Pueblo.....	44,200	28	1	0		0	1	0	3
New Mexico:									
Albuquerque.....	(1)	5	1	0	1	0	0	0	0
Utah:									
Salt Lake City.....	138,000	11	3	3		0	6	151	1
Nevada:									
Reno.....	(1)	0	0	0		0	1	0	0
PACIFIC									
Washington:									
Seattle.....	383,200	31	3	0			2	28	
Spokane.....	100,100	2	2	0			125	0	
Tacoma.....	110,500	21	1	0		1	1	8	0
Oregon:									
Portland.....	(1)	14	7	4		4	72	9	5
Salem.....	(1)	0	0	0		0	0	0	0
California:									
Los Angeles.....	(1)	117	40	13	38	3	17	36	37
Sacramento.....	75,700	15	2	0		0	2	8	4
San Francisco.....	585,300	26	20	11	4	0	9	17	7

¹ No estimate of population made.

City reports for week ended April 20, 1929—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expec- tancy	Cases re- ported	Cases, esti- mated expec- tancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expec- tancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	5	0	0	0	0	1	0	0	1	16
New Hampshire:											
Concord.....	0	3	0	0	0	0	0	0	0	0	8
Vermont:											
Barre.....	0	0	0	0	0	1	0	0	0	2	4
Massachusetts:											
Boston.....	69	57	0	0	0	16	1	3	0	35	223
Fall River.....	4	2	0	0	0	1	0	0	0	1	34
Springfield.....	7	16	0	0	0	1	0	0	0	2	32
Worcester.....	9	3	0	0	0	5	0	0	0	29	56
Rhode Island:											
Pawtucket.....	1	3	0	0	0	1	0	0	0	2	9
Providence.....	10	7	0	0	0	3	0	0	0	0	92
Connecticut:											
Bridgeport.....	11	5	0	0	0	1	0	0	0	1	27
Hartford.....	4	5	0	0	0	1	0	0	0	4	43
New Haven.....	9	2	0	0	0	4	0	0	0	8	38
MIDDLE ATLANTIC											
New York:											
Buffalo.....	24	39	0	0	0	11	0	0	0	32	148
New York.....	310	283	0	0	0	115	9	9	2	71	1,464
Rochester.....	14	4	0	0	0	0	1	0	0	24	53
Syracuse.....	12	7	0	0	0	2	1	0	0	18	48
New Jersey:											
Camden.....	7	1	0	0	0	0	0	0	0	7	34
Newark.....	33	21	0	0	0	16	1	0	0	26	110
Trenton.....	4	4	0	0	0	3	0	0	0	3	41
Pennsylvania:											
Philadelphia.....	97	75	0	0	0	25	2	7	0	74	479
Pittsburgh.....	28	20	0	0	0	7	1	0	0	27	164
Reading.....	4	10	0	0	0	2	0	0	0	5	25
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	21	76	1	3	0	11	1	0	0	10	142
Cleveland.....	34	34	0	1	0	22	0	0	0	81	205
Columbus.....	9	3	2	0	0	4	0	0	0	28	75
Toledo.....	14	7	1	0	0	6	0	0	0	86	56
Indiana:											
Fort Wayne.....	6	1	2	0	0	0	0	0	1	0	31
Indianapolis.....	9	82	9	0	0	9	0	1	0	55	125
South Bend.....	4	2	0	0	0	0	0	0	0	0	23
Terre Haute.....	2	2	1	0	0	0	0	0	0	8	18
Illinois:											
Chicago.....	118	168	2	0	0	63	2	0	0	54	758
Springfield.....	3	5	0	0	0	1	0	2	0	8	15
Michigan:											
Detroit.....	92	208	1	1	0	25	2	2	1	125	323
Flint.....	7	38	1	12	0	0	0	0	0	18	25
Grand Rapids.....	7	8	0	1	0	2	0	0	0	27	33
Wisconsin:											
Kenosha.....	2	2	1	0	0	1	0	0	0	2	12
Milwaukee.....	28	19	1	0	0	6	1	1	0	114	141
Racine.....	4	3	0	0	0	1	1	0	0	3	9
Superior.....	3	4	0	0	0	0	0	0	0	0	12
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	7	7	1	0	0	4	0	1	0	3	18
Minneapolis.....	47	16	1	0	0	2	1	0	0	119	169
St. Paul.....	27	19	0	0	0	4	0	1	0	54	79
Iowa:											
Davenport.....	2	2	2	0			0	0		0	
Des Moines.....	5	22	2	1			0	0		0	33
Sioux City.....	2	1	1	1			0	0		7	
Waterloo.....	1	13	0	0			0	0		4	

City reports for week ended April 20, 1929—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST NORTH CENTRAL—continued											
Missouri:											
Kansas City	15	15	2	1	0	8	0	0	0	16	103
St. Joseph	3	1	1	0	0	1	0	0	0	2	25
St. Louis	36	7	3	1	0	11	1	2	0	45	229
North Dakota:											
Fargo	2	2	0	0	0	1	0	0	0	1	11
Grand Forks	1	1	0	0			0	0		0	
South Dakota:											
Aberdeen	1	0	0	0			0	0		0	
Sioux Falls	2	1	0	0			0	0		0	10
Nebraska:											
Omaha	3	3	5	0	0	5	0	1	0	3	62
Kansas:											
Topeka	3	3	1	0	0	2	0	0	0	12	18
Wichita	3	25	1	2	0	1	0	0	0	29	22
SOUTH ATLANTIC											
Delaware:											
Wilmington	6	1	0	0	0	1	0	0	0	1	37
Maryland:											
Baltimore	32	19	0	0	0	17	2	1	0	112	208
Cumberland	1	1	0	0	0	0	0	0	0	0	12
Frederick	3	0	0	0	0	0	0	0	0	0	3
District of Columbia:											
Washington	24	18	1	0	0	10	0	1	0	30	127
Virginia:											
Lynchburg	0	1	0	0	0	0	0	0	0	2	12
Norfolk	2	0	1	0	0	3	0	0	0	21	
Richmond	3	1	0	0	0	3	0	0	0	7	48
Roanoke	1	1	0	0	0	1	0	0	0	0	23
West Virginia:											
Charleston	1	0	0	0	0	0	0	0	1	9	7
Wheeling	2	1	0	0	0	0	0	0	0	3	16
North Carolina:											
Raleigh	0	1	0	0	0	0	0	0	0	6	7
Wilmington	0	0	0	1	0	0	0	0	0	0	9
Winston-Salem	1	1	2	0	0	1	0	0	0	39	11
South Carolina:											
Charleston	0	0	1	0	0	1	0	0	0	6	19
Columbia	0	0	1	0	0	1	0	0	0	3	16
Greenville	0	0	1	0	0	0	0	0	0	3	1
Georgia:											
Atlanta	4	3	3	0	0	5	0	9	0	0	74
Brunswick	0	0	0	0	0	0	0	0	0	0	3
Savannah	0	0	1	0	0	2	1	0	0	25	35
Florida:											
Miami	0	2	2	0	0	0	1	0	0	6	19
St. Petersburg	0		0		0	0	0	0	0	0	17
Tampa	0	0	0	0	0	0	0	2	0	5	10
EAST SOUTH CENTRAL											
Kentucky:											
Covington	2	4	0	0	0	2	0	0	0	0	19
Tennessee:											
Memphis	6	4	3	0	0	3	0	0	0	8	38
Nashville	1	8	0	0	0	6	0	1	0	1	49
Alabama:											
Birmingham	2	2	7	0	0	3	0	0	0	14	85
Mobile	0	0	1	0	0	4	0	0	0	0	14
Montgomery	0	3	1	0			0	0		0	
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	1	0	0	0			0	0		0	
Little Rock	0	0	0	0	0	0	0	1	1	0	
Louisiana:											
New Orleans	6	46	0	0	0	17	2	10	0	0	151
Shreveport	1	2	1	0	0	0	0	0	0	1	31

18 cases in nonresidents.

City reports for week ended April 20, 1929—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL—contd.											
Oklahoma:											
Oklahoma City.....	2	3	3	4	0	3	0	0	0	0	35
Tulsa.....	2	0	1	5			0	0		13	
Texas:											
Dallas.....	3	8	2	1	0	3	1	0	0	0	58
Fort Worth.....	1	3	5	10	0	1	0	1	0	0	25
Galveston.....	0	0	0	0	0	1	1	0	0	0	12
Houston.....	1	1	2	1	0	5	0	0	1	0	73
San Antonio.....	1	2	0	1	0	10	0	0	0	0	62
MOUNTAIN											
Montana:											
Billings.....	0	0	0	0	0	0	0	0	0	0	4
Great Falls.....	1	0	1	0	0	0	0	0	0	6	11
Helena.....	1	2	0	0	0	0	0	0	0	0	1
Missoula.....	1	0	0	3	0	0	0	0	0	0	11
Idaho:											
Boise.....	1	2	0	1	0	0	0	0	0	0	5
Colorado:											
Denver.....	11	2	2	0	0	6	0	0	0	15	72
Pueblo.....	1	0	0	0	0	0	0	0	0	0	10
New Mexico:											
Albuquerque.....	1	0	0	0	0	4	0	0	0	9	13
Utah:											
Salt Lake City.....	2	2	2	1	0	0	1	0	0	14	32
Nevada:											
Reno.....	0	0	0	0	0	1	0	0	1	0	3
PACIFIC											
Washington:											
Seattle.....	8	12	2	6			1	2		101	
Spokane.....	4	2	7	2			0	0		3	
Tacoma.....	2	0	3	13	0	0	0	0	0	3	21
Oregon:											
Portland.....	5	3	17	14	0	4	0	0	0	0	84
Salem.....	0	0	1	0	0	0	0	0	0	0	0
California:											
Los Angeles.....	23	52	5	0	0	33	1	2	1	22	305
Sacramento.....	1	21	0	3	0	1	1	0	0	13	25
San Francisco.....	17	67	2	1	0	15	1	0	0	44	158

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Polio-myelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Massachusetts:									
Boston.....	3	2	1		0	0	0	0	0
Worcester.....	1	0	0		0	0	0	0	0
MIDDLE ATLANTIC									
New York:									
Buffalo.....	0	1	0		0	0	0	0	0
New York.....	26	8	4	0	0	0	1	3	0
New Jersey:									
Newark.....	2	1	0		0	0	0	0	0
Pennsylvania:									
Philadelphia.....	2	1	1	1	0	0	0	0	0
Pittsburgh.....	1	1	0	0	0	0	0	0	0

City reports for week ended April 20, 1920—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	1	1	0	0	0	0	0	0	0
Cleveland.....	5	1	0	1	0	0	0	2	0
Toledo.....	3	3	0	0	0	0	0	0	0
Illinois:									
Chicago.....	11	6	0	0	0	0	0	0	0
Michigan:									
Detroit.....	29	16	2	1	0	0	0	0	0
Flint.....	2	0	0	0	0	0	0	0	0
Wisconsin:									
Milwaukee.....	5	2	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Minneapolis.....	1	0	0	0	0	0	0	0	0
Missouri:									
Kansas City.....	10	4	0	0	0	0	0	0	0
St. Joseph.....	1	0	0	0	0	0	0	0	0
St. Louis.....	6	5	0	0	0	0	0	0	0
North Dakota:									
Fargo.....	1	0	0	0	0	0	0	0	0
SOUTH ATLANTIC									
Maryland:									
Baltimore.....	1	0	0	0	0	0	0	0	0
North Carolina:									
Raleigh.....	0	0	0	0	0	1	0	0	0
Winston-Salem.....	0	0	0	0	3	2	0	0	0
Georgia:									
Atlanta.....	6	5	0	0	0	0	0	0	0
Savannah.....	0	0	0	0	1	0	0	0	0
Florida:									
Miami.....	0	0	0	0	0	0	0	2	0
EAST SOUTH CENTRAL									
Tennessee:									
Memphis.....	3	1	0	0	0	0	0	0	0
Alabama:									
Birmingham.....	0	0	0	0	1	1	0	0	0
Mobile.....	0	0	0	0	0	1	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans.....	2	2	0	0	4	3	1	0	0
Oklahoma:									
Oklahoma City.....	0	1	0	0	1	0	0	0	0
Tulsa.....	1	0	0	0	0	0	0	0	0
Texas:									
Dallas.....	0	0	0	0	1	1	0	0	0
Fort Worth.....	0	0	0	0	0	1	0	0	0
MOUNTAIN									
Montana:									
Great Falls.....	1	1	0	0	0	0	0	0	0
Colorado:									
Denver.....	2	2	0	0	0	0	0	0	0
Pueblo.....	1	1	0	0	0	0	0	0	0
Utah:									
Salt Lake City.....	11	5	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	12	0	0	0	0	0	0	0	0
Tacoma.....	1	0	0	0	0	0	1	0	0
Oregon:									
Portland.....	0	0	1	0	0	0	0	1	0
California:									
Los Angeles.....	2	1	0	0	0	1	0	1	0
Sacramento.....	0	1	0	0	0	0	0	0	0
San Francisco.....	1	1	0	0	0	0	0	0	0

The following table gives the rates per 100,000 population for 98 cities for the 5-week period ended April 20, 1929, compared with those for a like period ended April 21, 1928. The population figures used in computing the rates are approximate estimates, authoritative figures for many of the cities not being available. The 98 cities reporting cases have estimated aggregate populations of more than 31,000,000. The 91 cities reporting deaths have nearly 30,000,000 estimated population. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, March 17 to April 20, 1929—Annual rates per 100,000 population, compared with rates for the corresponding period of 1928¹

DIPHTHERIA CASE RATES

	Week ended—									
	Mar. 23, 1929	Mar. 24, 1928	Mar. 30, 1929	Mar. 31, 1928	Apr. 6, 1929	Apr. 7, 1928	Apr. 13, 1929	Apr. 14, 1928	Apr. 20, 1929	Apr. 21, 1928
98 cities.....	135	161	129	140	132	135	124	146	135	139
New England.....	120	124	102	110	140	126	118	168	143	131
Middle Atlantic.....	180	223	187	181	190	189	166	210	198	204
East North Central.....	142	148	119	146	125	121	126	116	122	116
West North Central.....	131	133	138	84	75	102	83	102	112	80
South Atlantic.....	60	122	66	128	82	96	71	90	66	88
East South Central.....	41	56	41	70	27	35	75	42	7	42
West South Central.....	123	118	123	109	122	134	126	162	103	126
Mountain.....	35	80	44	115	44	44	61	133	70	80
Pacific.....	70	105	30	74	60	77	67	74	60	102

MEASLES CASE RATES

98 cities.....	760	1,325	719	1,375	845	1,275	827	1,336	900	1,361
New England.....	568	1,536	471	2,014	542	1,874	642	1,727	502	1,743
Middle Atlantic.....	179	1,397	154	1,495	174	1,508	160	1,744	146	1,829
East North Central.....	1,593	1,008	1,590	1,021	1,834	1,033	1,943	997	2,025	816
West North Central.....	1,880	728	1,782	751	1,961	765	1,655	864	2,123	990
South Atlantic.....	452	3,021	414	3,008	650	2,386	465	2,173	761	2,455
East South Central.....	136	1,361	88	1,354	88	596	129	814	54	1,490
West South Central.....	198	1,135	99	847	264	442	241	434	182	385
Mountain.....	766	505	409	753	618	709	192	744	209	762
Pacific.....	247	809	239	581	282	448	329	525	389	394

SCARLET FEVER CASE RATES

98 cities.....	346	309	319	303	291	276	271	223	269	252
New England.....	306	412	394	405	348	331	319	301	244	264
Middle Atlantic.....	308	375	264	399	244	367	224	274	224	288
East North Central.....	495	305	452	266	426	252	372	193	417	271
West North Central.....	292	293	310	258	275	264	242	278	215	289
South Atlantic.....	159	226	167	230	94	186	122	161	90	168
East South Central.....	306	154	265	77	210	91	183	42	143	112
West South Central.....	281	126	285	146	284	150	237	130	233	106
Mountain.....	113	177	78	186	104	239	165	239	70	213
Pacific.....	379	202	322	207	328	133	387	123	384	151

¹ The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1929 and 1928, respectively.

² Pawtucket, R. I., and Fort Smith, Ark., not included.

³ Pawtucket, R. I., not included.

⁴ Fort Smith, Ark., not included.

Summary of weekly reports from cities, March 17 to April 20, 1929—Annual rates per 100,000 population, compared with rates for the corresponding period of 1928—Continued

SMALLPOX CASE RATES

	Week ended—									
	Mar. 23, 1929	Mar. 24, 1928	Mar. 30, 1929	Mar. 31, 1928	Apr. 6, 1929	Apr. 7, 1928	Apr. 13, 1929	Apr. 14, 1928	Apr. 20, 1929	Apr. 21, 1928
98 cities.....	11	25	16	25	11	18	12	20	9	22
New England.....	7	0	11	0	2	0	2	0	0	0
Middle Atlantic.....	0	0	0	0	0	0	0	0	0	0
East North Central.....	12	18	17	24	15	24	20	24	11	31
West North Central.....	12	125	25	65	17	84	8	49	10	61
South Atlantic.....	0	25	12	75	4	15	4	11	2	11
East South Central.....	7	35	41	35	7	14	7	28	0	21
West South Central.....	103	36	95	36	81	4	79	16	12	8
Mountain.....	44	62	44	142	26	106	78	151	44	168
Pacific.....	15	61	22	23	17	18	10	74	62	59

TYPHOID FEVER CASE RATES

	7	5	10	6	5	5	12	5	10	6
98 cities.....	7	5	10	6	5	5	12	5	10	6
New England.....	7	9	5	5	5	2	9	9	7	7
Middle Atlantic.....	6	4	5	4	2	1	7	5	8	6
East North Central.....	4	3	17	2	7	3	11	1	4	3
West North Central.....	6	0	8	2	4	6	25	8	10	6
South Atlantic.....	6	11	13	23	4	13	13	4	24	10
East South Central.....	27	7	27	14	7	21	20	21	7	21
West South Central.....	8	8	20	12	8	16	43	20	43	20
Mountain.....	9	0	0	0	0	0	0	0	0	0
Pacific.....	20	5	0	3	7	8	7	3	10	3

INFLUENZA DEATH RATES

	27	33	18	30	20	35	15	31	15	29
91 cities.....	27	33	18	30	20	35	15	31	15	29
New England.....	5	9	5	11	12	16	7	9	9	7
Middle Atlantic.....	23	22	12	29	16	31	14	27	11	26
East North Central.....	20	35	16	24	18	40	15	27	14	28
West North Central.....	30	24	18	28	27	34	6	37	18	61
South Atlantic.....	30	42	22	23	17	21	17	33	21	17
East South Central.....	89	100	89	115	74	92	30	123	15	92
West South Central.....	77	100	37	87	49	108	32	92	63	46
Mountain.....	78	123	52	53	44	80	17	53	9	53
Pacific.....	33	7	16	13	20	7	23	13	13	13

PNEUMONIA DEATH RATES

	169	218	158	225	150	218	139	213	127	204
91 cities.....	169	218	158	225	150	218	139	213	127	204
New England.....	188	182	172	225	103	179	127	177	115	166
Middle Atlantic.....	190	245	180	265	178	244	161	243	134	243
East North Central.....	141	211	132	206	134	240	126	199	119	191
West North Central.....	189	178	150	196	147	184	114	263	108	233
South Atlantic.....	185	239	159	239	144	187	165	212	146	187
East South Central.....	170	222	170	161	141	263	163	176	155	238
West South Central.....	81	279	130	246	142	187	93	241	81	200
Mountain.....	165	168	131	106	122	97	113	196	122	106
Pacific.....	170	101	157	118	131	104	96	88	187	81

¹ Pawtucket, R. I., and Fort Smith, Ark., not included.

² Pawtucket, R. I., not included.

³ Fort Smith, Ark., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities of each group, approximated as of July 1, 1929 and 1928, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1929	1928	1929	1928
Total.....	98	91	31,568,400	31,052,700	29,995,100	29,498,600
New England.....	12	12	2,305,100	2,273,900	2,305,100	2,273,900
Middle Atlantic.....	10	10	10,809,700	10,702,200	10,809,700	10,702,200
East North Central.....	16	16	8,181,900	8,001,300	8,181,900	8,001,300
West North Central.....	12	9	2,712,100	2,673,300	1,736,900	1,708,100
South Atlantic.....	19	19	2,783,200	2,732,900	2,783,200	2,732,900
East South Central.....	6	5	767,900	745,500	704,200	682,400
West South Central.....	8	7	1,310,100	1,289,900	1,285,000	1,256,400
Mountain.....	9	9	598,800	590,200	598,800	590,200
Pacific.....	6	4	2,090,600	2,043,500	1,590,300	1,551,200

FOREIGN AND INSULAR

SMALLPOX ON VESSEL

Steamship "Tuscania."—The S. S. *Tuscania* arrived at Marseille from Bombay March 27, 1929, with one case of smallpox on board, which was disembarked at Marseille. All passengers and crew were vaccinated before the ship's arrival at Liverpool, April 1. The ship arrived at Glasgow, April 4, with seven cases of smallpox on board, all among members of the crew, which were disembarked and isolated in the hospital at Glasgow.

All members of the crew are under observation, and a list of the passengers has been sent to competent authorities. Sanitary measures have been taken in regard to the ship.

CANADA

Provinces—Communicable diseases—Week ended April 13, 1929.—The Department of Pensions and National Health reports cases of certain communicable diseases from eight provinces of Canada for the week ended April 13, 1929, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Cerebrospinal fever.....		1		2	1	1	3		8
Influenza.....	14		6	18				7	45
Lethargic encephalitis.....				2					2
Poliomyelitis.....							1		1
Smallpox.....	1		11	15		1		12	40
Typhoid fever.....	1	2	17	20	4	2			46

Quebec Province—Communicable diseases—Week ended April 20, 1929.—The bureau of health of the Province of Quebec reports cases of certain communicable diseases for the week ended April 20, 1929, as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis.....	2	Mumps.....	73
Chicken pox.....	32	Scarlet fever.....	123
Diphtheria.....	53	Smallpox.....	8
German measles.....	12	Tuberculosis.....	44
Influenza.....	54	Typhoid fever.....	20
Measles.....	103	Whooping cough.....	21

CHINA

Meningitis.—During the week ended April 20, 1929, 3 cases and 3 deaths from meningitis were reported at Canton, China. At Shanghai there were 58 admissions to the hospital, and 35 deaths from meningitis during the week ended April 29. No case of meningitis was reported in Hong Kong during the week ended April 20.

ITALY

Communicable diseases—Four weeks ended October 21, 1928.—During the four weeks ended October 21, 1928, communicable diseases were reported in the Kingdom of Italy as follows:

Disease	Sept. 24-30		Oct. 1-7		Oct. 8-14		Oct. 15-21	
	Cases	Com-munes affected	Cases	Com-munes affected	Cases	Com-munes affected	Cases	Com-munes affected
Anthrax.....	50	46	51	38	43	34	54	44
Cerebrospinal meningitis.....	7	6	2	2	2	2	10	9
Chicken pox.....	37	22	21	14	37	27	55	32
Diphtheria.....	367	207	360	204	387	228	480	261
Dysentery.....	43	21	21	16	17	11	12	5
Lethargic encephalitis.....	1	1	1	1	2	2	1	1
Measles.....	319	109	586	140	763	137	889	100
Polionymyellitis.....	26	23	28	18	20	18	18	15
Rabies.....	1	1						
Scarlet fever.....	354	146	293	127	331	137	382	169
Smallpox.....			1	1	1	1	1	1
Typhoid fever.....	1,351	540	1,432	628	1,339	549	1,285	564

SCOTLAND

Glasgow—Smallpox.—Information dispatched April 19, 1929, stated that the number of cases suffering from smallpox or under observation in the hospital at Glasgow was 20, of whom 18 were members of the crew of the S. S. *Tuscania*, and 1 was a passenger. A passenger from the ship was also found suffering from smallpox at Aberdeen, and was taken to the hospital.

TRINIDAD

Port of Spain—Vital statistics—Comparative—March, 1929.—The following statistics for the month of March, 1929, with a comparison of the same month for the years 1925 to 1928, are taken from a report issued by the public health department of Port of Spain, Trinidad:

	1925	1926	1927	1928	1929
Number of births.....	176	140	165	160	164
Births per 1,000 population.....	52.4	25.5	29.9	28.8	29.1
Number of deaths.....	120	115	98	118	123
Deaths per 1,000 population.....	22.1	21	17.7	21.2	21.8
Deaths under 1 year.....	18	20	15	13	24
Deaths under 1 year per 1,000 births.....	102.3	142.9	90.9	81.2	144.3

YUGOSLAVIA

Communicable diseases—March, 1929.—During the month of March, 1929, communicable diseases were reported in Yugoslavia, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax.....	24	5	Poliomyelitis.....	2	—
Cerebrospinal meningitis.....	12	5	Rabies.....	1	1
Diphtheria.....	267	75	Scarlet fever.....	1,044	211
Dysentery.....	21	1	Tetanus.....	3	3
Measles.....	991	44	Typhoid fever.....	73	10
Lethargic encephalitis.....	5	5	Typhus fever.....	7	—

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

PLAGUE—Continued

[C indicates cases; D, deaths; P, present]

[illegible]

Place	Octo-ber, 1928	No-vem-ber, 1928	De-cem-ber, 1928	Janu-ary, 1929	Feb-ru-ary, 1929	March, 1929
Union of South Africa:						
Orange Free State.....	0	0	1	4	1	
Transvaal.....	0	0		3		
Uruguay:						
Montevideo.....	0	0		1		
Rivers.....	0	0				
On vessel:						
S. S. Obenonoeur, at Singapore, from Co-lombo.....	0	0				
S. S. Halydan, at Bangkok, from Singapore.....	0	0				
S. S. Sjoman, at Alexandria, from Batoum.....	0	0		1		
Place	Octo-ber, 1928	No-vem-ber, 1928	De-cem-ber, 1928	Janu-ary, 1929	Feb-ru-ary, 1929	March, 1929
British East Africa (see also table above):						
Kenya.....	37	16	15	7	4	
Uganda.....	134					
Ecuador: Guayaquil.....	106	21	20	25	64	
Plague-infected rats.....	3	8	7	12	22	
Greece (see also table above).....	21	29	75	29	27	
Indo-China (see also table above).....		1	2	3		
Madagascar (see also table above):						
Antsirabe Province.....	2	1	1	1		
Ambohitra Province.....	88			11		
Antsirabe Province.....	252	263	253	224	230	3
Itasy Province.....	8	14	79	169	10	
Moramanga Province.....	6	14	74	159	15	
Tamatave.....	2	6	4	4	15	
Madagascar—Continued.						
Tanamariva Province:						
C.....	100	159	158	208		
D.....	95	141	144	192		
C.....	10	18	26	37		
D.....	4	6	6	9		
Senegal:						
Baol.....	39	18	4	4		6
C.....	14	6	2	2		3
Cayor.....	17	14	14	10		
C.....	35	6				
Fatlok.....	20	14				
C.....	14	2				
Loug.....	14	1				
C.....	40	8				
Rufisque.....	14	4				
C.....	51	11				
Thies.....	29					
C.....	1					
Tivouane.....	1					
C.....	3					
Syria: Beirut.....						

: Reports incomplete.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX

[C indicates cases; D, deaths; P, present]

Place	Oct. 21- Nov. 17, 1928	Nov. 18- Dec. 15, 1928	Dec. 16, 1928- Jan. 12, 1929	Week ended—																
				January, 1929				February, 1929				March, 1929				April, 1929				
				19	26	2	9	16	23	2	9	16	23	30	6			13	20	27
Algeria:																				
Algiers:	2	1																		
Cherchell:																				
Oran:	7																			
Arabic: Aden:	1	1	1																	
Brasil (see table below):																				
British East Africa (see also table below), Kenya—																				
Mombasa:																				
British South Africa:																				
Northern Rhodesia:																				
Southern Rhodesia:	342	67	173																	
Tanganyika:	14	8	23																	
Canada:	1	5																		
Alberta:																				
Calgary:	4	21	3																	
Edmonton:																				
British Columbia—Vancouver:																				
Manitoba:	21	25	51																	
Winnipeg and vicinity:	14	29	23																	
New Brunswick:	17																			
Nova Scotia:																				
Ontario:																				
Kingston:	12	15	36																	
Niagara Falls:																				
North Bay:																				
Ottawa:																				
Sarnia:	6	2																		
Toronto:																				
Windsor:																				
Prince Edward Island:																				
Quebec:	118	125	37																	
Quebec:	10	16	5																	
Quebec:	13	6	4																	
Riviere du Loup:																				

Ecuador (see table below).

CHOLERA, PLAGUE, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX—Continued

[C indicates cases; D, deaths; P, present]

Week ended—

Place	Oct. 21, 1928	Nov. 18, 1928	Dec. 15, 1928	Dec. 16, 1928- Jan. 12, 1929	January, 1929				February, 1929				March, 1929				April, 1929			
					1929		1929		1929		1929		1929		1929		1929		1929	
					19	26	2	9	16	23	2	9	16	23	30	6	13	20	27	
Egypt:																				
Charbi																				
Port Said																				
Suez		1				1											1			
France (see table below).																		4		
Great Britain:																				
England and Wales	531	719	733		230	250	250	231	275	268	280	272	288	323	273	339				
Bradford						1					1		3							
Bristol		1					4										1			
Cardiff		1			14	16	14	22	31	12	20	13	17	17	9	5				
Carnarvon	6	8	16																	
Carmarthen	3	1																		
Hull	1	2	1		1	1	1	1	1	3	1	1	3	3	1	1				
Leeds																				
Liverpool																				
London	21	14	36		13	17	4	9	17	10	18	11	13	19	15	20				
Newcastle-on-Tyne	1	3			1	5	2	2		3	1	2		14	1					
Nottingham	1	3					1	1					2							
Plymouth	6																			
Stoke-on-Trent	9	11	4		8	2	2	5	4	4	5	4	28	20	20	42				
Scotland—																				
Dundee	2	1														12				
Glasgow																	1			
Greece (see table below).																				
Hedjaz																				
India:																				
Bombay	3,041	5,902	7,877		3,248	3,111	3,028	3,530	3,047											
Calcutta	9	11	24		38	44	93	112	148	142	119	94	86							
Canton	4	13	10		23	32	37	49	70	58	52	51	45							
Cebu	2	7	6		3	7	7	7	9	24	21	13	19							
Colon																				
Hankow																				
Hongkong																				
Kobe																				
London																				
Lyons																				
Manila																				
Peking																				
Rangoon																				
Shanghai																				
Singapore																				
Sourabaya																				
Tientsin																				
Yokohama																				
Karachi																				
Madras																				

On vessel:

S. S. Ballarat, en route to Cape Town, South Africa
 S. S. Lopez-Lopez, at Suez
 S. S. Lopez-Lopez, at Suez
 S. S. Malva, at Suez, from Calcutta
 T. Malina (motorship) at Amsterdam
 S. S. Thucania, at Glasgow, from Bombay

Place	December, 1928			January, 1929			February, 1929			March, 1929		
	Sep-tem-ber, 1928	Octo-ber, 1928	No-vem-ber, 1928	1-10	11-20	21-31	1-10	11-20	21-28	1-10	11-20	21-31
Indo-China (see also table above)	C	100	144	23	100	120	74	130	107	128	226	361
Ivory Coast	C	1	2									4
Senegal	C	1	1							17	8	45
Sudan (French)	C	32	2	2		P				1	3	7
Syria: Beirut	C	1	2			1		1		21	24	3
											10	2

Place	Sep-tem-ber, 1928	Octo-ber, 1928	No-vem-ber, 1928	De-cem-ber, 1928	Janu-ary, 1929	Feb-ru-ary, 1929	Place	Sep-tem-ber, 1928	Octo-ber, 1928	No-vem-ber, 1928	De-cem-ber, 1928	Janu-ary, 1929	Feb-ru-ary, 1929
Brail: Porto Alegre	C	1	12	3			Greece	6	6	6	6	8	5
British East Africa (see also table above):							Morocco		1	1	1	1	1
Kenya	C	36	37	31			Persia	4	5	2	119	68	23
Zanzibar	C	2					Portugal (see also table above)		27				
Chosen: Chinnampo	C		6	13	1	1	Turkey	24	3				
Ecuador: Guayaquil	C	22	3	1	1	1						16	7
France	C	3	3	18	6	3						6	

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CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

TYPHUS FEVER

[C indicates cases; D, deaths; P, present]

Place	Oct. 21- Nov. 17, 1928	Nov. 18- Dec. 15, 1928	Dec. 16, 1928- Jan. 12, 1929	Week ended—														
				January, 1929			February, 1929			March, 1929			April, 1929					
				19	26	2	9	16	23	2	9	16	23	30	6	13	20	27
Algeria:																		
Algiers.....	4																	
Constantine Department.....	2																	
Oran.....	4	9	5		5	4		2	2									
Bulgaria.....	1				3	4		3		19	17	7	18					
Sofia.....								1		2	2	1	3					
China: Valparaiso.....		1																
China:																		
Canton.....					2	2												
Hong Kong.....					2													
Manchuria—					1													
Harbin.....		2																
Kwantung.....	1											1						
Chosen (see table below).																		
Egypt:																		
Alexandria.....												1						1
Assouan Province.....																		
Beheira Province.....																67	50	
Daqaliya Province.....		15	11													9		
Gharbiyah.....		1	2					1				34						
Maroufah Province.....																		
Port Said.....																		
Greece (see table below).																		
Ireland: Irish Free State—																		
Clare County—Scariff.....	1																	
Cork County.....																		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

YELLOW FEVER

[C Indicates cases; D, deaths; P, present]

Place	Week ended—															
	January, 1929				February, 1929				March, 1929				April, 1929			
	19	26	2	9	16	23	2	9	16	23	30	6	13	20	27	
Dec. 16, 1928																
Nov. 18-1928																
Dec. 15, 1928																
Nov. 17, 1928																
Oct. 21-Nov. 17, 1928																
Brazil:																
Bahia.....	1															
Guaratingueta.....																
Para.....																
Rio de Janeiro.....	2															
Sao Paulo.....	1															
Dahomey: Ouidah Military Camp.....																
Gambia: Bathurst.....																
Liberia: Monrovia.....																
On vessel:																
On S. S. Victoria, at Manaus, from Para, Brazil.....																

1 20 cases of yellow fever with 14 deaths were reported at Rio de Janeiro during January, 1929, mostly suburban.

* Imported.

* Suspected cases.